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LONDON SCHOOL OF HYGIENE
AND TROPICAL MEDICINE.
[DIV. OF EPIDEMIOLOGY.]

E P I D E M I C K S,
OR
G E N E R A L O B S E R V A T I O N S
O N T H E
A I R A N D D I S E A S E S,
F R O M T H E Y E A R 1 7 4 0, T O 1 7 7 7 I N C L U S I V E;
A N D P A R T I C U L A R O N E S
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C O N T A I N I N G A D E S C R I P T I O N O F
S O M E P R E P A R A T O R Y S T A T E S:
A N D O F T H E R I S E A N D P R O G R E S S O F
A P E S T I L E N T I A L C O N S T I T U T I O N.
T O W H I C H I S P R E F I X E D
P R I M I T I V E D I S C O U R S E O N S U B L I M E S C I E N C E:
W I T H O B S E R V A T I O N S O N
t h e W r i t i n g s o n D i v i n e S u b j e c t s.

B Y J. B A R K E R.

Birmingham :

P R I N T E D B Y E. P I E R C Y, B U L L - S T R E E T;

A N D S O L D B Y

T. L O N G M A N, P A T E R - N O S T E R - R O W,
L o n d o n.

ERRATA.

- PAGE xvi, line 9, for observations read observation.
 47, line 10, for Thusus read Thafus.
 96, Note § line 2, for crifes read crisis.
 121, Note § line 3, for last year read in the year 1793
 144, dele line 28th.
 154, line 10, after siccâ read et exæstuate.
 161, Note * line 4, for length read length.
 174, line 25, for general read generally.
 175, line 10, for last Summer read in the Summer and begin
 of Autumn 1793.
 182, Note † line 2, for who had read having, and line 2
 lay read lying.

A
DISCOURSE
ON
SUBLIME SCIENCE,
AND ITS IMPORTANCE;
AND ON THE PRINCIPLES OF TRUE
Divine, Political, and also Physical Knowledge;
WITH REFLECTIONS ON THE AUTHOR'S WRITINGS
ON THOSE SUBJECTS;
Also on the imperfect and fluctuating state of Learning,
AND THE
STATE OF ANCIENT AND MODERN PHYSIC.

THE first great object of the mind, the most noble of all sciences, full of knowledge, to exercise and increase the soul's active powers, restore to their right state its depraved faculties, inspire it with true ideas, and bring men back to the use of reason, and the practice of which is connected with their essential interests, their welfare and happiness both here and hereafter, is Divinity, or the truth of the Christian Religion: And the next, that rising out of and united with it, teaching true policy, and to form right notions of the source and nature of temporal authority, productive of obedience to the civil powers. By these, bodies of men are firmly linked together, and the bonds of society drawn tight, the rights of individuals secured, harmony kept up, and on them, under Providence, depends the peace of the world; as the health and lives of men often do, so far at least as such second causes are concerned, on the knowledge and practice of true Physic. The latter great science indeed, as it regards only the present well-being of the body, and the preservation of life, cannot stand in competition with the two former, though the health and lives of men, are things of great moment

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and concern. From the full knowledge then, of the great importance of true principles in religion, and right notions of government, and a due consideration of the great mischiefs arising from dissensions about civil and religious matters, and the want of faith and obedience, by insisting on the former, it has been my earnest wish to have prevented the latter, before I treated at large upon Physic.

The first treatise I dedicated to this use, appeared as early as in the year 1772, and hath been followed by several others. And certainly to have pointed out in times like these, what is truth of sentiment in matters of faith, and openly shewn the nature and extent of obedience, stands in need of no apology: the mere diffusing of true knowledge of these great subjects being, at all times, confessedly one of the greatest benefits a man can bestow on his fellow-creatures; but especially when mens minds are so abroad*, and they are so busy in their enquiries after, and eager in the pursuit of it, though unhappily so divided, at the same time, in their notions about it. It is impossible, indeed, that unity of opinion should exist among men in the present imperfect state, wherein their views are different, their interests clash, their understandings are often led astray by false ideas, and blinded by prejudice, and their wills biassed by the passions. And though by reason of this, the success of my endeavours to instill true notions of these great subjects, and most sublime parts of science, must necessarily have been imperfect, it does not however repent me that I have endeavoured it; and with the full prospect before my eyes, of evils that must arise from the spreading of heretical opinions and pernicious tenets, notions subversive of order, and that strike even at the root of Government itself, not sat down ignorantly regardless, nor idly meditating on these things, but laboured to prevent them. Not shut up my knowledge within my own breast, but brought it forth long since for general use, and endeavoured to diffuse it as far as possible, for the universal

* The eyes of a Fool, Solomon has well observed, are in the ends of the Earth. And without the simple perception of truth, no great knowledge is to be attained.

benefit of mankind. If principles indeed were of no consequence, and one might with safety wholly disregard or at least pass slightly over them, much of this labour might have been spared, as well as somewhat be said in excuse of the wonderful wanderings of the present age. But as they are the secret springs of action, and bad ones are often productive of the greatest mischiefs, too great care cannot be taken by writers, and men in general, to implant good ones, and to fix them firmly, and those only in the minds of men.

I wish I could say that the temper of mens minds had been such that my writings on religion and obedience, which I humbly conceive might have been productive of good, had been as much attended to for our mutual benefit, as some others more in vogue, which instead of doing good have done much harm. For of such bad consequence are unsound opinions in Philosophy, wrong notions of Government, and false principles in Religion, that there is no end of the mischiefs they occasion. And from including in this severe censure, I cannot except even the writings of Mr. Locke. For most men take, what they call, knowledge upon trust; and their sentiments from the opinions of others, whom they look up to as to the supposed adepts and masters in science: the truly learned and intelligent indeed know better, and are not to be imposed on. Nothing however appears to me to have contributed so to disseminate, and spread abroad among the people wild and weak notions, and corrupt ideas of science in general, and the itch of writing, as modern reviews; the legitimate descendants of those writings ushered into the world in the time of Doctor Norris, and Mr. Locke, by a set of Gentlemen who took up the name of the Athenian Society, and whom the former most pointedly ridicules for impotently attempting, to use his own words, "to turn a Conventicle into a Port-Royal, and setting up for Virtuoso's." For my part I never heard of but one great Critic and accurate Judge of sublime writing: how wonderfully prolific then must our island be that can furnish us with so many? If however we must have criticism, let us have that which

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consists of liberal sentiments and unprejudiced opinions, that which is sober and ingenuous, that which is pure and genuine ; not the wild reveries, and undigested notions of infatuated minds, and the effusions of the spirit of party. One would think the dreadful and exemplary sufferings of a great and long flourishing neighbouring nation, by setting before our eyes in a strong and even glaring light, the sad effects of reading bad books, and the horrid consequences necessarily attendant on want of faith and obedience, might at length awaken some, if nothing else could, from their dream of error, and bring them back again by degrees, to truth and soberness, which I most sincerely wish may be their case. If men would hearken to sound sense, or even to experience, and could read history with improvement, the people of this nation have not wanted the best means of information ; for by only turning over the pages of Clarendon's History of the Rebellion, against Charles the first, they may be made fully sensible of its hateful nature and sad consequences. Reformatiions are generally only the idle dreams of ignorant or wicked men, and to be good for any thing, must begin in those of principles and manners.

But how unfairly soever truth in Scripture may have been perverted or resisted, and new ways of thinking introduced, by falsely representing those things as corruptious, which were the established doctrines of the ancient church, or how ignorantly or disingenuously soever some may have appealed to reason, that is no sufficient cause why its friends should so depreciate, declaim against, and set it at nought : which, besides that, there is no fair reasoning from the abuse of any thing against the use of it, is a mode of argument that is by no means likely to be received in the present age. And as there is no sufficient reason for attempting to degrade human nature on the one hand, so neither is there for representing the great truths of religion as neither in any measure discoverable by, nor even agreeable to reason on the other. For if this were really the case, why were they in so peculiar and sublime a manner, and so truly revealed ? And if discoverable in
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a sufficient degree by some, as I can speak from experience for myself, that through the help of revelation I know that they are, why may they not with proper assistance and a due degree of attention be so, in some measure at least, by more? It is true, human reasonings, through corruption of nature are now very fallible: reason however itself, the peculiar gift of God to and his image in man, which when defaced, the christian religion was revealed to restore, in the divine being, is truth. Instead of depreciating it, that great Divine, Mr. Norris, in his time wrote a book full of the purest and most sublime devotion, expressly entitled, *Reason and Religion*. And a greater than he disdained not the use of it, but reasoned with such force before the Roman Governor, of righteousness, temperance, and judgement to come, that Felix trembled. And St. John in his Revelations, in the most pathetic terms, pronounces those blessed, who understand the words of the prophecy of that book, wherein all the sublime truths of religion are revealed. To cut this matter short then, it appears plainly to me, that, instead of flying from the face of reason, the better way would be for the friends of true religion, with it on their side, to boldly face it out, to fight its enemies with their own weapons, to shew them plainly that they have wholly mistaken the matter, and that right reason, that is truth, is in all respects, and armed, as it were, at all points, against them; which is most undoubtedly the case, and had men in general abilities in the present state, to see things in their true light, most easily to be proved.

And even in this state, the helps afforded christians, are so many and great, as must convince every ingenuous mind, of want of proper attention to the great truths of religion, and due improvement by them, both in knowledge and virtue. If then, instead of following knowledge with true ardor of mind, and the native vigour of the great ancient writers, and tracing out her remote, intricate, and rugged ways, mounting up her steep ascents, and opening new prospects on the sublime walks of science, we suffer ourselves to be diverted from our course, and deterred

from proceeding, by representations that the tract is either wholly impervious, or the road impassable, and persuaded to turn aside with others, into bye ways ; what can we expect but to be numbered with the common herd, that from want of ability, or the ill direction of it, or through indolence, and want of spirit, have failed in the pursuit.

That many do not attain true knowledge in the sublime sciences, and very few indeed in an eminent degree, and consequently not make great proficiency in any of them, the number of the revivers in modern days of perverse disputes in divinity, about the nature of Government, and the imperfect and variable state of Physic, evidently enough shew. And yet upon the understanding and due practice of these three great branches of science, the health and lives of individuals, their well-being in society, or the happiness of men both here and hereafter, as I have already observed, under Providence essentially depend. Hard indeed it is to teach those whose understandings are blinded, or dispositions are averse ; and imperfections, from which no mortal is exempt, undoubtedly there are, in all human compositions : however, exclusive of these, I think I can fairly appeal to the testimony of my own mind, that it has been my constant endeavour in my writings, to add unto the stock of sublime and useful knowledge, by a faithful and liberal communication. But if, after all this, men will turn aside to vain jangling, will receive no instruction, nor take any answer,— whose fault is that ? When matters, I say, come to that pass, it is then high time to leave them ; since it can answer no good end, at least can be of no further present use to write. And, under such circumstances, every wise man will naturally retire, and withdraw himself from such a state of things as far as he can.

Before I close these observations on the importance of true religion, and the necessity of civil obedience, suffer me once more, to shew the nature and principles of both. As to religion then, the first great article of the christian faith, and leader of all the rest, the highest point of know-

knowledge which revelation affords, as a principle to direct us, is this, that the Deity is triune. For there can be no redemption without a Redeemer; the highest Angel not being equal, much less any mere man, to this great office. And though this great truth, because that through the corruption of nature, few minds are now able to rise up to the contemplation of the divine, is in general to be received on the testimony of that revelation, and the belief that God's word is true; without humility enough, founded on a due sense of our own weakness of mind and corruption of nature, and the need we stand in of a divine Saviour, without humility of mind enough, I say, to believe and receive it upon that ground, no man can be a christian. Not that revelation debars any man from understanding its own explanation of this great mystery, so far as it does explain it, for it would be highly unreasonable to suppose this; and much greater light it does let into it, than is generally apprehended. * Which Mr. Jardine or some other of those, who are too full of logic and mathematical learning, which may deny, but can never reach it, to let in faith, if they could be persuaded in this instance, to lay it down, and take up simplicity of thought, and poorness of spirit, perhaps might find; as well as some of those ingenuous minds, that submit to divine truth, if they were not drawn off from contemplating this great object, and haply men could fix their eyes so steadily on it, that they could observe it.

If then, this great article be of such high importance, and the very foundation of the christian religion, men ought to be very careful that they do not speak slightly of it, much more with infidels reject it, and endeavour to divide things by their nature inseparably united, modern unitarianism being nothing less, than an absolute denial of the truth of it: and it being, in another respect, as irrational, erroneous, and heretical to set up morality against faith,

* See Jardine's Discourses and arguments against the Trinity.

as with the Methodists faith against works ; of which latter wild, mistaken, and heretical opinion the former unfortunately has been the parent. Besides, salvation is not of works, taken in an absolute sense : they certainly indeed are an indispensibly necessary qualification, but not more, for obtaining it, and acceptance through the merits of the mediator. If any thing however will produce true piety, and lead men to the performance of the humble works of righteousness, it must be a lively and genuine faith, they being the natural effects of it. Pride, an hateful sin, that acts so imperceptibly, that we frequently know not when we are guilty of it, and sticks withal so close to us, that it never fails to taint even our best actions. lies ever lurking at the bottom of such a boasting morality, as magnifies, and sets itself up against faith. This was the case with the heathen Philosophers of old, whose pride disqualified them and rendered them incapable of embracing the Gospel. And this has also been the case unfortunately with many others, under the same circumstances, since their time.

If weak, misinformed, and unruly minds, could be persuaded to lay aside their habits and ways of thinking, and men brought to look at things with an unprejudiced eye, and in their proper light, and to walk steadily in that middle path, wherein truth only lies, if, I say, they would think and act as men and reasonable creatures, not, instead of depreciating reason in an undue manner with some, exalt it too much by setting it above revelation on the other, but wisely suffer their minds to be instructed by divine truth, they would find that the unitarianism, if it may be so called, of the primitive christians, is the only true one : not that of Socinus and Doctor Priestley, nor that of Emanuel Swedenborg. The early christians however, though they certainly did worship the Almighty Father, did it through the Son, by the spirit, and sometimes even paid divine adoration to Christ, by calling on his name. Consequently never thought of denying his subsistence, and that of the Holy Spirit in the Godhead, by setting up the
Father

Father alone ; nor of denying the existence of two of the subsistencies in the Deity, after another mode, and endeavouring to confound the truth still more, by setting up the Son for the Father. Now if scripture declares there are three subsistencies in the divine Being, as it certainly in effect does, by calling each of them in many places God and Lord, and did no more, would not men, conscious as they must be of their want of powers to comprehend the nature of an infinite Being, act wisely in acquiescing and humbly receiving it upon the simple testimony of truth itself, of him who perfectly knows his own nature; which men do not, and cannot lye nor deceive ?

However as we unfortunately know this will not always be done, in order to accommodate my own notions, the imperfect glimmerings of reason aided by revelation, to the weak conceptions, frailties, and faults of poor short-sighted and imperfect mortals like myself, suffer me once more philosophically, through the help of revelation, to lay down this indisputable truth, that though God certainly is one, it is impossible he should be so in the unitarian or socinian sense, because the truth is a subsistence in the divine Being necessarily distinct from, though in eternal communion with the mind or person of the Father ; the latter being self-originated and productive, and the former brought eternally into being. And that the Son, the Saviour of the world, calls himself this truth, no one need be ignorant. There needs then no farther controversy about this matter, with persons open to conviction, this alone being perfectly conclusive both philosophically and religiously upon the subject ; it being as impossible that the self-existent Father, and the truth or his eternal ideas, should be the same subsistence in the divine Being, as that the mind of man and his ideas should be the same. But farther, the second subsistence called by Solomon and other inspired writers, the wisdom, the only begotten Son, and the first-born of every creature, that is, the great exemplar of all created beings, or archetype of all things, is not only the begotten essential truth or wisdom in the deity, that enlighteneth the mind
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of every man that cometh into the world, or affordeth all men what true ideas they have, but also the infinitely active and almighty word of God, full of divine power, and inheriting as a Son the spiritual nature of the Father. On which account our countryman Milton, after scripture, introduces the Father, in his *Paradise lost*, calling the Son “his *word*, his *wisdom*, and effectual *might*.” And Solomon in a strain still more sublime says, “thy almighty word leapt down from heaven, out of thy royal throne, as a fierce man of war into a land of destruction, and brought thine unfeigned commandment as a sharp sword, and standing up, it filleth all things with death, and it toucheth the heaven but it stood upon the earth,” the Son being the messenger and vicegerent of the Father. And the divine St. John in the beginning of his gospel declares, that the word was eternal, in the beginning with God, that is coessential with the Father, and concerned in the creation of the world: a proof of the divine nature, and subsistence of the Son in the Godhead, sufficiently obvious even to a common understanding.

Again,— does any one doubt that the light which issues from the body of the sun and pervades the solar system, is of the same nature of that resident in its luminous body, or that it is distinct from it? In like manner the spiritual substance, infinite energy and power, wisdom, and love of God proceedeth in a third subsistence, the holy spirit, from the central being of him that sitteth upon the throne in heaven, through the infinity of space, whereby the Deity is omnipresent; the three subsistencies being in eternal union and communion with each other, and but one God. But as many are ready enough to cavil, who are not able to teach, some may perhaps object against taking an image from nature, in order to represent and give finite creatures some faint ideas of the mode of the existence of the greatest of all spiritual beings. But it is undoubtedly a most proper one and peculiarly so in this, that God is light, though spiritual light; as well as because it gives us some imperfect ideas of the procession of the spirit from
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the central being of God, and sheweth that there are natural appearances afforded by their great author, to quicken our belief and reception of this great truth, and even distinct subsistencies of the same nature, existent in and proceeding from the same natural body, demonstrative of it. Moses was inspired with good ideas of the procession of the spirit, who says in his description of the creation, that "the spirit of God moved upon the face of the waters:" and also Solomon, who says in the beginning of his book of wisdom, that "the spirit of God filleth the world and he that containeth all things hath knowledge of the voice." And there is no man so ignorant, but who has full grounds for belief in, and may also form from thence some notions, however imperfect, of his omnipresence by his spirit. And so much of this great article of a christian's faith, the belief of three subsistencies in unity in the Godhead.

As to the general nature of Government, and the true principles of obedience to legal power, matters that cannot be too much insisted on in the present times, give me leave to observe, that there is no body of men nor nation upon earth, that is not under some kind of Government, not excepting even the savage Indians, and inhabitants of the islands of the South Sea: and till Governments were instituted and states formed, even the families of the antediluvian and postdiluvian world, were governed by their Patriarchs. Every man is subject to the Government he is under, from the moment of his birth, and there is no one comes into the world, who is not bound by the law of obedience, to honour and obey his Parents, the executive Powers and laws of his country. To say then, that any man is born free from obligation, is an idle conceit, contrary both to history and experience, a palpable absurdity, void of all truth; for without Government, no society could subsist. As to the origin and delegation of power, it can proceed from none but God, who is the only true source of it: as is evident in the infliction of punishments capital, which have their true sanction from him. The consent of the people,

people, indeed, and a disposition to obey their rulers, is absolutely necessary in all good Governments. They may also be concerned in public Deliberations, acts of Legislation, and in modifying Governments: and in pure Democracies and elective forms, some may be even chosen from among them, to be the executive powers. But when these supreme powers are once set up, under whose auspices do they act? Surely not the people's, but God's; even supposing them to be accountable by the laws to the former, as in Governments not monarchical, may be the case. For civil power can have no legitimate origin from those who are born subject to the law of obedience, but from some other. When they are aggrieved and oppressed, the people indeed sometimes rebel against their rulers, but they are accountable to God for it on the one hand, as well as Kings are for the abuse of power, on the other; and at the same time by no means sure, nor even likely to better their condition by it. For after all, they must still fall into the hands of him that governs the world, and sitteth at the head of all power. And who hath commanded christians to obey their rulers, not only for wrath, but also for conscience sake. Out of conscience, I say, of the duty they owe to God, how unfashionable a tenet soever it may be in the present age, and let me add, also out of prudence. For he that ruleth the kingdoms of the earth, and hath presided over all from the beginning, is no inactive being that sits an idle and unconcerned spectator, of wickedness and disobedience, but the infinitely, intelligent, omnipresent and almighty supreme director of all human affairs, public as well as private; who, when a people disregards his admonitions and corrections, and despises his merciful forbearance and long-suffering, most infallibly punishes such wicked and rebellious nations, by bringing calamities upon their country. Chastizing them often, by taking away good Governors from them, and permitting bad ones to rule over them: and sometimes when they are in a yet worse state, and a kingdom in a manner, ripe for destruction, even turning wicked men loose, for their mutual punishment on one another. And in other cases and
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among those in a better condition, and whose manners are not in general, in such a corrupt and depraved state, for the same wise reasons of his providence, endeavouring in mercy to reclaim them by gentler methods, by setting up better Princes, and prolonging the lives of good ones.

These are the principles of true obedience, which I treated of long ago, and wished to fix firmly, with the first principles of faith, in men's minds for their good. And were not the prejudices of education so great, the influence of opinion, and usual modes of thinking so prevalent, the passions so strong, and had not the various interests of men such firm hold upon their minds, that few can divest themselves of, and so cast off the two former, and effectually resist the two latter, as to recover simplicity of mind, and get clearness of perception enough, to see things in their true light, they might perhaps, if well received, properly diffused abroad, and duly attended to, with the blessing of Providence on their side, be productive of some benefit.

And now let my Countrymen, permit me to take notice, that, after silencing three of the greatest adversaries, * of the ecclesiastical establishment and ablest writers against the truth of the christian religion, at a time when their strenuous endeavours to introduce their own ways of thinking, became an object of serious national concern, both in regard of the Constitution itself, and the influence their unsound opinions might have in eradicating the ideas of revealed truth out of the minds of men—after giving a final answer to a fourth, who, when these champions were driven off the field, seeking shelter in, and succour from external evidence, the writings of the Fathers, by putting the controversy thus upon a fresh footing, when it would not stand upon the fair ground of scripture, vainly endeavoured to

* The Author of Remarks, Mr. L—df-y, and Mr. T-yl-r, of Norwich, the Author of B——— Mordecai's Letters,

revive and support an expiring cause—'To what desperate lengths will not men run? To what little disingenuous arts do they not fly? To what wretched shifts are they not put when they set their faces unfortunately against the truth? Certainly men must have but little respect for the understanding of their fellow-creatures, or minds infatuated, and understandings clouded with ignorance, and under the dominion of error, who could think at this time of day, of persuading men to forsake the religion of their forefathers, and by profanely, shall I say? setting up ecclesiastical writing, against sacred scripture, pretend to bring historical proof, that the blasphemous and rotten system of Socinus, and his followers, artfully dressed up in the outward garb of truth indeed but standing not in it, but the finite reason of man, full of pride, and long ago exploded, that the unitarianism, I say, of modern days, is like that of the primitive church, which believed faithfully not only in the second person, but also in the third; and the members of which, great sinners as they confessed themselves to be, and all men are, presumed not to approach and pay adoration to the father, without a thorough belief in, and reception of the mediation of the son; nay, who went much farther, paying actual worship to the latter, by calling upon his name—After shewing in the clearest light, in opposition to these errors, the truth of the faith, recommending unanimity, and thoroughly pressing the necessity of obedience, both to God and man; endeavouring thus to preserve unity in the bond of peace, and inspire my country-men with the true love of their country, and its most excellent constitution, both in Church and State: Not a pretended one shewn in tumult and disorder, acts of violence and injury—After all these endeavours, I say how ungrateful soever a return they may have met with, and from what causes soever this may have come, I think I may with truth, and, I hope, also with modesty say, I have done what in me lay, to correct dangerous erroneous opinions and practices, and prevent many of the horrid mischiefs arising from them,
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that have since happened in the world. And I hope the eyes of all, are now so fully opened, that they can plainly see the pernicious nature and dreadful effects of infidelity, corruption of manners, and disobedience in their true colours.

Of the imperfect and fluctuating state of Learning, and the state of ancient and modern Physic.

I COME now at length, according to my promise, to treat of the truth in Physic. It will, I doubt not, by most be thought an impotent attempt to get, surely then a vain-glorious boast, to pretend to have gotten knowledge, which the learning and industry of all ages, have never been able to acquire; and least of all will this be expected to be done by one, who has been said to pass in an idle manner, the latter part of his days, secluded from society, and in a manner, useless to himself and others. As if intense application of mind, was not at any time equal to the greatest exercise of body.* But notwithstanding such unfaithful

* Zimmerman in his Treatise on Solitude, among other excellent observations, takes notice, that "an habit of dissipation enfeebles the mind, and that solitude and proper retirement from the world, strengthen it" And I can faithfully say, that it requires a considerable degree of it, to make the observation, and use the attention and reflection necessary, for the completion of such a work as this. But hear him in his own words, according to the translation of them,—“The manners of men are formed by intercourse with the world, and their characters by retiring into solitude. Here they will soon discover, whether they have only learned complaisance, or have acquired freedom of thought, firmness of expression, dignity of sentiment, and grandeur of stile.

“Solitude raises the mind to an high degree of elevation and power. The man who has not courage enough to place himself above the prejudices and fashions of the world; who dreads the reproach of singularity; who forms and conducts himself upon the example of others; will certainly never acquire a sufficient share of resolution, to live a life of voluntary solitude. It has been well observed, that solitude is indispensibly necessary

faithful representations, I hope very soon to convince such people of their wrong and uncharitable ways of thinking, and to make them fully sensible of their mistake. For though to truly understand the causes of disease be undoubtedly one of the most difficult parts of knowledge for the human mind to attain, if medical Gentlemen can be persuaded to lay aside false knowledge, their idle notions and corrupt Theories, partial and visionary Systems—if they can be brought back to simplicity of thought and observations, have capacity for it and will use diligence and attention, I think they will not be, at least it shall not be my fault if they are, as heretofore, so greatly deficient in it.

Honestly to speak the truth however, though I confess great industry has been used in cultivating and promoting the growth of it in its lesser branches; yet as the great ones, if not untouched, at least are left unimproved, as far as my observation reaches: while men are so taken up with little things, and seem more disposed to contradict and discountenance truth than follow it in greater, I cannot say that I have any good reason to entertain sanguine hopes, that this or any other part of sublime science will flourish in the present Age. Nor from any good reception my former writings on medical subjects have met with from the present generation, or any gratitude shewn for benefits received in greater matters, did not my duty call and promise

necessary, to give a just, solid, firm, and forcible turn to our thoughts, as a knowledge of the world is to give them richness and brilliancy, and to teach us to make a wise and happy application of them.

“The mind of a solitary man, attacks prejudice and error, with as much vigour and courage, as an athletic champion meets his adversary. Repeated examinations bring the object of our attention more near; we behold their properties with greater certainty, and feel more strongly that which we have seen. If the soul enter entirely into itself, it then becomes more easy to work with efficacy on external objects. A man of a reflecting and intrepid mind, who retires within his own bosom, seizes truth wherever he discovers her, and regards with the tranquil smile of pity, those who think themselves authorized to speak of her with contempt; he hears without being disconcerted, the invectives which envy and prejudice throw out against him; for he perceives a weak multitude making Hue and Cry, the moment he opens his hand and unlooses one of the truths which it contains.”

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bind me, do I think that it could decently lay claim to future favours. As however I well know that this work and what may succeed it, may, by divine Providence, lay a foundation of lasting benefit to all generations, should they happily reach future times; whatever may regard the present age, I know not that posterity hath incurred a penalty, and lost its title by an act of Forfeiture.

It is now between two and three thousand years, that is ever since the time of Hippocrates, that any observations on the state of the Air and the diseases arising from them, worth notice have been given to the world. An imputation of gross negligence highly dishonourable to Physic, to speak in the softest terms! a wide chasm, I say, in knowledge, that so essentially regards life and health! a dreadful interval, full of horrid mischiefs, did not the Almighty, at his good pleasure, in mercy interfere, to correct the errors, and were he not at all times by his Providence all sufficient, to supply the miserable deficiencies of men! For strange to be told, and what makes the matter still worse, so far from imitating it, the best writing of the best writer in Physic, has never been well understood, nor consequently made a proper use of all that time.

That many have not since risen having abilities, to answer such purposes, and promote such great ends, had they retained original simplicity of mind, and used due industry and attention, is what, I hope I shall never have pride enough to believe. The great defects then, under which Physic hath so long laboured, must have arose from the want of good knowledge, as a ground to proceed upon, arising from the too frequent neglect, in young men, of studying the best authors, or the want of diligent and perseverant observation. But indeed Physic, along with other noble sciences, is now looked upon too much in the light of an art, or profession to get money, and obtain a fortune; a consideration too apt to lead men off from nobler views. For though it be both proper and necessary, that a man should provide for himself and his family, nothing but its true incitement, in generous minds, the sincere love of
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knowledge, will be found sufficient to raise that noble and persevering temper in the soul, necessary in enquiries after truth, nor urge men forward in the pursuit of it. Not, but that, as I wish not to degrade the profession of an art to be had in honour, I am ready to acknowledge, there are many worthy persons in it, and ingenuous minds, that take great pains, if they were not unfortunately too often spent on little matters. As however I can never be thankful enough for possessing a soul not bent on sordid views, or that could take up with mean attainments, and sit down contented with a moderate share of knowledge, as well as one fully sensible of the very imperfect state, *Physic* at present lies in, I hope there will be no great harm in declaring such bold truths. Especially, if haply it should be a means of persuading some, and stirring up others, so to improve their natural abilities, increase their attainments, and promote knowledge, in this, or any other liberal profession they may take up, as to prove eminently useful to one another. Not confining their efforts, to do good, to the short time they are here on earth, and looking at such matters, in a contracted light, but extending their views, and like the true Heroes of old, laying a foundation of beneficial services to mankind, if possible to the end of time.

Indolent minds, and slavish souls, whose great objects are riches, and the enjoyments of the world, will not think of these things. And though every active labourer, the good effects of whose honest industry, reach not beyond the term of his natural life, is entitled to his reward, and this be the common duty of men, it is not fit that all should walk in this common beaten road; confine their services to their fellow-creatures, to a period so short, and when they go out of the world leave a blank space behind them; proving no more useful to mankind afterwards, than if they had never been. We are not then, to set narrow bounds to our desires of, and endeavours to get wisdom, nor to be discouraged, and stop short at the ill success of others, but thirsting after knowledge use our utmost efforts, since the giver of it, imparts it with a liberal hand to those who ask for, and seek to find it. It is an Ocean indeed without a bottom, a sea without a shore: but if we proceed cautiously, and at the same

same time courageously, we may, with divine help, at length wade through great depths, though we can never hope to pervade the unfathomable parts of it.

In the cultivation of natural science, it has ever been the fault of Philosophers to divide the means of obtaining it, and to endeavour to disjoin things inseparably united; in the present times, sticking close to experiment, almost to the utter exclusion of reason, and as if it were of no use. But, though mens minds are to be under good government, and duly restrained, as well as to have something to go upon, and lead them on in their researches, without calling in reason to the aid of experiment, as well as observation, and without its acting also with force and efficacy, it is plain to me that science will never be able to make any considerable progress. Considering however the multitude of deceptions there are, and the vast number of times mens hopes have been disappointed, it is not wonderful that, though the many follow the fashion of the day, men of deep thought and penetration are slow in giving credit to new systems. But objections raised on this ground, though plausible enough, unfortunately lye full in the way of all systematic knowledge in Physic; and are therefore not only fit to overturn false systems, but also liable to obstruct the reception of what is true. But the worst of the whole matter lyes in this, that with no true systematic knowledge, to help it forward, good observations on the air and diseases, have been also at a stand in Physic, ever since the time of Hippocrates*. With nothing then to go upon, and set out with, and nothing to lead them on, it is no wonder men, instead of pressing forward in the right path, should strike into wrong roads, become bewildered, incapable of distinguishing truth from falsehood, lost in error, and unable to proceed. Under such circumstances, and when men are so widely gone astray, it is a matter of no small difficulty merely to bring them back again, and put them into the right road. Thus it hath been with systems, and as to ancient Physic, particularly that excellent piece of writing the Epidemics of Hippocrates, his Commentator Galen, de-

* Unless Doctor Ruffel's book on the Plague of 1782, be an exception, which I have not seen.

clared his insufficiency, and incapacity of understanding them, by only disputing the authenticity of the title of the third book. So far was he from understanding the nature, and having any just notions of the rise and progress of a pestilential constitution, and the true nature of the diseases under it, or from making good observations of his own, in order that he might. And yet, one would have thought, that, when the former had set out the road, others might have followed him in the same track. Since Galen's time, Hippocrates's method of observation, has been deserted, and Galen's, &c. in general followed, with some few exceptions. A description of diseases, with hard names, has been insisted on, an useless parade kept up, and a tarrago of gross medicines used, instead of exploring causes, in order to direct practice aright. And what has been the consequence? Why, that what with the want of the knowledge of these, and of good observations on the air and diseases—what with the confusion introduced into medicine, by the disputes of the opposite sects of the Rationalists and Empyricks, the jargon and pretences of Chymists, the formers of Theories, and the framers of Systems, Physic has remained in a puerile, if not infantine state, even to this day.

Such hath been, and is its state. In the very age we live, it hath undergone a total change, both in regard of principle and practice. Imperfection and instability, however, are not peculiar to it, and confined to it alone, but what it hath shared in common, with other great branches of knowledge; a matter noticed by the greatest writers. Cornelius Agrippa, it is well known, wrote a book of the vanity of the sciences, a complaint as old as the days of Solomon. It is true, he was persecuted from city to city, and even from country to country, for telling the truth; which the pride, foibles, or greater faults of men, never yet did, nor will bear. Gideon Harvey, a Physician of our own country also, in the beginning of this century; wrote a book of the vanities of Philosophy and Physic. And men of discernment in modern days, have long been dissatisfied with the instability of science and the fluctuating state of learning, and the want of that perfection, many laboured to attain.

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For what one man raises, another pulls down and destroys. What was Philosophy, is not so now, but has changed its face, as well as Physic; and from the instability of human notions, even law itself has been subject to change. Religion, indeed, holds its place, * and gains ground of superstition: it is, however, tainted with corruption of manners, in many of its professors, and a certain degree of lukewarmness in matters of faith, over-run with heresy, and rent with schism. As to other branches of science, men endued with only a moderate share of penetration, are sensible enough, I say, that there are great defects in them, which they find themselves unable to supply, and which they have little hopes of seeing well supplied by others. But, if they are really in earnest in their wishes, to attain that perfection in knowledge, they seem so ardently to desire, though they are not to adopt the notions, and implicitly to subscribe to the dictates of others, without examination, and thinking for themselves, it is yet fit they should learn to be taught. That, influenced by the sincere love of truth, and not looking with an evil eye, but laying aside prejudice of every kind, and thinking humbly of themselves, they may be duly qualified to receive information, and patiently abide instruction, from those who are able and willing to teach them.

As to Physic, my present subject, I have already shewn the very defective and unstable state it has lain in, and still lies. The Epidemics of Hippocrates, the most noble work it has to boast of, having lain, as I have said, in a kind of dormant state, for ages upon ages; the uses they might have been put to, having been much neglected, and the benefits naturally to have arisen from them, having been in a great measure lost. This, it is true, has long been a great misfortune to Physic; but the mischief now, is quite of another kind, not that men cannot, but that they will not be taught. Not but that there are always some generous spirits, which both think and act, as becomes all noble

* The present corrupt state, both of principles and manners, in France, is perhaps an exception.

minds. And if there are any who do otherwise, as, however unworthy it may be of rational beings, and dishonourable to human nature, if we are to take judgment from our knowledge and experience, it must with pain be confessed, that there are ; all that can be said, is, that the health and welfare of mankind, are things too precious, to be left to the will of unreasonable and interested men. Certain it is that, how much soever disposed, many physical Gentlemen of the present age are, to wish well to the increase of medical knowledge, they too evidently appear unwilling to receive helps, that have a tendency greatly to promote it, from any but their own body. How various, subtle, and destructive, to the interests of truth, are the workings of pride ? As if it was a matter of importance how knowledge was gotten, when really acquired. Did not Hypocrates rise superior to all men in the knowledge of Physick, without an academic education ? Because no man since hath retained simplicity of mind enough, been endued with due ability and sagacity, or rather used attention, industry, and perseverance, hitherto, sufficient to follow him ; is that to preclude any one from doing it to the end of the world ? Because no man since hath been able to observe, and describe, a pestilential constitution, and Sydenham, Huxham, and others, at home and abroad, who attempted to tread in his steps, made but faint efforts, in describing states of the air, and the diseases produced by them ; is it therefore unlawful for any other person to make better, and give to Physic another description, of a pestilential constitution itself ? Because his commentator Galen, and our own countryman Friend, did not understand his works, is no man after them to do it ?

The elapsing of such an enormous interval of time, as between two and three thousand years, without any good observations being made on the air, and the diseases arising from its state and temperature, or duly explaining, and bringing into good use, the excellent ones of Hippocrates, is undoubtedly a consideration fully sufficient, greatly to lessen, if not entirely take away, future expectation on the one hand, as well as mightily to abate any common degree
of

of resolution, and damp the ardor, and lessen the force and perseverance of most minds, on the other. And after all this, perhaps, an attempt to do it, may by many be thought, to be the effect of an infatuated understanding, rather than the rational effort of a well directed mind. But what is to be done? Nothing less than this, and a great deal more will do. For the continual coining of new hypothetical systems, inconsistent with observation, and discarding this, and taking up notions of disorders, founded on whim and caprice, will ever confound the principles of this noble art, and turn it in its course retrograde. Nor if we go with the sect of the Empyricks, adopt their notions, and pretend to cure diseases, without knowing any thing of their causes, shall we get one step forwarder? For knowledge in Chemistry or Botany, will make small amends in practice, for the want of that true physical science substantially founded, both on reason and observation, which is alone capable of reducing Physic to any tolerable state.

It is doubtless, not fit that any one should dispute the palm of observation with Hippocrates, the great father of Physic, worthy of all due honour, because he it was who first laid out the road, wherein others were to walk, and made the first great advances in it. Otherwise, I could, and in the following pages, even shew, that it required more sagacity, industry, and attention, to observe, and mark out, the multifarious, and diffusive pestilential constitution, spreading out itself, as it were, and bringing in the diseases, as well as their more violent symptoms, attendant on its continuance and increase, by degrees, hereafter to be described, than that which came on more suddenly, in his time, under the meridian of Greece.

Nor, though my medical writings and rational and honest endeavours to teach others, so far from being duly attended to, have not even been treated with decency, to speak foolishly, if it be proper to declare the truth, can I stop even here; since I can without presumption take upon me, under Providence, to claim more. Namely, the disco-

very of the hidden sources, and real causes of disease, as seated in the blood and juices, their general and local effects; and as dependant also on relaxation, debility, and defect of the moving powers, general or particular, hereditary or acquired. Not a defective system like that of Hoffman, Boerhaave and others; but one, that by means of strict observation, and through rational and true deduction, is at unity with every principle, and accords with every phenomenon in Physic.

The conjunction of these causes, tends to stagnation suddenly destructive, or succeeded by violent, quick, irregular circulation, or more feeble and intermitted efforts; ending, where the natural powers, can attenuate the morbid tenacious juices, and by degrees throw off, by the discharges from the body, the greatest part of the oppressive load, in the gradual return of health; or, when by reason of the intractable and inseparable nature of them, and her own inability, she cannot, in the obstruction, and at length the stoppage of all motion, corruption and death; or else in chronical disorders; often, sooner or later, coming to the same fatal issue. And where no such febrile efforts arise, the whole tribe of the former, that is chronical complaints, instead thereof, under various circumstances, are brought on, for want of such salutary efforts. And their causes in the blood, are the want of sanguification, and the abounding of an invincible tenacity, joined with acrimony, hereditary at first, and gradually increasing, in the malign quality of its virulent parts, and also in quantity, by reason of those glutinous, compacted, oppressive, foul and acrid juices, that by intemperance, are taken in, by retention accumulated, and by frequent circulation, without sanguification and assimilation, heat, and the long action of the vessels upon them, without the proper reduction of their parts, and their discharge from the body, are by degrees rendered like those imperfect and depraved parts of the blood, which are hereditary, and added to them.

But with these things, Hippocrates was not well acquainted; nor can I give them systematically, within the com-

compass of this work. * It is true, he had some just notions of the causes of hereditary diseases, which he has given us, when treating *de Morbo sacro*, in general terms, and according to the translation, in the Geneva edition of Fœsius, in the following words, which I have elsewhere quoted. “*Initium verò ducit veluti alii morbi secundum cognitionem. Si enim ex pituitoso pituitosus, &c. quid vetat ut cuius parentes hoc morbo detineantur, eo quoque et posterorum aliquis corripiatur. Cum nempe genitura ex omnibus partibus corporis procedat, a sanis sana et a morbofis morbofa.*” These ideas, however, though excellent as far as they will go, are not sufficient to carry us to the extent of that great subject, the cause of diseases: which must therefore be left to a regular investigation, and accurate description, and future time and leisure.

As to the Epidemics of this great author, they are, as I have already said, undoubtedly the most valuable part of his works. The propriety therefore, of the freedom wherewith they seem to have been treated, in the present times, I must confess, I cannot well understand. Since, if I am not mistaken, it appears to me, if we are to think with certain medical Gentlemen, we are not to believe there is any thing extraordinary in them. However, if such are really their sentiments, I can truly say, they are very extraordinary; and that it is by no means proper, we should take their word for it. Certain it is the translation of that part of them, the public has been favoured with, seems more to discredit, than recommend the study of them. Having, according to my opinion, without entering at all into their spirit, explaining well their nature and design, informing us of their true subject, or considering the close connection their several parts have with each other, as ill an effect upon these most excellent writings, as any translation at least, if not parody in our language, ever had upon those of Virgil.

* The great defect of modern Physic, appears to me to lye in the want of strict attention to the animal œconomy, and the knowledge of the nature of health, without which, it is impossible to understand disease.

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But let us not deceive ourselves, it is not the proper business of the present age to misrepresent, depreciate, and try to demolish, the works of ancient authors, and raise a temporary reputation on their ruins; nor to endeavour thus to undermine and destroy, the substantial foundations of solid learning, that were laid by them in former times: but, to build upon them, that the edifice in time may be made perfect. The study however, of this great work of Hippocrates, as well as of some other excellent parts of his writings has been laid aside too much, I am fearful, and not enough insisted on, in the present age. But however, thus neglected, and viewed in no favourable light by some, at least not had in such great esteem as formerly, his Epidemics, as well as his Aphorisms and Prognosticks, certainly contain an accuracy of observation, truth, and strength of description, and profound sagacity, that has baffled the attempts of all succeeding writers, to give good comments on; such depth of knowledge, and truth of simple practice, grounded on observation, and the knowledge of natural efforts, and their effects, and such precision, and force, in a nervous and often even sublime strain of writing, as no medical author has come up to, nor like him been master of, since his time.

Could I see a good Comment on them, I should with pleasure subscribe to the terms *learned* and *ingenious*, as they relate to a respectable body of men, or to particular persons. But as the present work was written, and its ultimate intention is, an endeavour to preserve the health, and even save the lives of numbers, that fall a sacrifice daily to the want of true knowledge, I cannot deal in compliments, when reprehension is called for so loudly. For the mere application of the term *putrid*, to the burning fevers attending the present pestilential state, that arose with it in the year 1778, and have continued ever since, and by which those of a long continued state of the air were properly enough distinguished, by confounding things different in nature, and that have essential distinctions, and sometimes even carrying on unfortunately the practice, made use of in the latter, into the former, has been productive,

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at times of the worst consequences. This I must take the liberty to mention ; for to be made sensible of error, is the first step to the reception of truth.

In the time of the great plague in London, its true causes were so little attended to, and medical Gentlemen were so little acquainted with the nature of a pestilential state of the air, its causes and effects, that even Doctor Skinner imagined the infection was brought into the Kingdom, in hides imported from Holland. And indeed it has been the common vulgar notion in later times, that communication by infection carried from other places, situated in very hot and intemperate climates, is the sole cause of the rise and progress of this dreadful disorder, at least in northern ones.* Though I will do Baynard the justice to mention, that, according to Echard's account, in an hot intemperature, clear sky, and apparent fine weather, he observed, at the same time, so great a stagnation in the air, that for several weeks, if not some months, there was not so much wind as would turn a Fane. However, through the general prevalent ignorance of the causes of this raging Pestilence in the atmosphere, under this hot and unventilated state of it, fires by the advice of some medical Gentlemen, were lighted in an evening in the city ; which raised the intemperature on a sudden, to such an height, that 4000 are said to have died in one single night. There are great defects and errors, I think, in the writings of the late celebrated, and otherwise learned, Doctor Mead, upon these subjects. Whose opinion was, that the plague could not rise in any climate, but that of Ethiopia, or, at least, that it did in general arise in it. May it not take its rise, I ask among christians, by Almighty power, in any climate upon earth ? Thus we see that the want of a due degree of faith infallibly includes a want of knowledge. And mi-

* The Plague certainly may be brought into a kingdom, and spread in large cities and towns, in confined situations, and an impure air. And therefore great vigilance is necessary, and all prudent methods undoubtedly ought to be used to prevent it. But it will not rage without the heat of a pestilential atmosphere.

ferable indeed must that ignorance be, that springs from the want of proper belief in the Providence of our maker.

The wise son of Sirach, justly observes, that the Physician is worthy of all due honour, that is the good one. For the credit then, of so noble an art, let us all with the greatest industry, by unwearied application, endeavour to obtain true knowledge of it. Not suffering reputation for skill in the practice of it to rest, more than is expedient, on academical titles, which, in many Universities, are perhaps too incautiously bestowed, and in some, irregularly, or soon obtained.* For that Physic is a very abstruse science, naturally tending very slowly towards perfection, and that requires peculiar ability, and great attention, to acquire even only a tolerable share of knowledge in, the very imperfect and fluctuating state it has lain in, for so many ages, affords convincing testimony. There is indeed, one, nay there are two most honourable seminaries of learning, that do not degrade themselves, nor confer their principal degrees in Physic, till after length of time, and a severe study. And yet, notwithstanding the many eminent men they have educated, and nourished in their bosoms, they never turned out a Physician, that did not labour under great defects. For my own part, I hold academical honours in so low esteem, that I would not now accept a degree in Physic, from any University in Europe. For, thanks be to the Almighty Donor, for his inestimable gifts, I shall ever consider it as more honourable, to be able to think and write well upon sublime subjects, without an academical education, than with one; which must be the sentiment also of every ingenuous mind, and a just tribute which every generous one will pay. And as to external things, as I never expected an increase of fortune, or promotion in rank of life, from my labours in writing, so do I not now even desire them, but chiefly to approve myself to that great master, whose I am, and under whom I act, and to give a tolerably good account at last, of the use of those talents he has bestowed on me.

* The Universities in England, in particular, and per haps some others are to be excepted.

It unfortunately happens, frail as we are, and inconsistent in our conduct, as history and experience give too convincing testimony, that we are either apt to admire men more, rate their abilities higher, and think their works and actions greater, than reason and sound sense will warrant, or to run headlong, and fall into the contrary extreme, and indulge another propensity, full as erroneous, but not quite so laudable, that of depreciating these things in others, sometimes, perhaps, more than ordinarily capable of instructing, and doing great service to mankind: especially if they happen to be placed in an inferior station, attempt to controvert established notions, and introduce new ways of thinking, and have gained knowledge in a way unusual, and not by following the rules which custom has prescribed, and adhering to the forms laid down. Nor let any one think, that by saying this, or any thing in this work, I am professedly magnifying my own powers, recording my own merits, or trumpeting my own praise. There is a time, and there are also circumstances nearly related to, nay often closely connected with general good, under which, a due defence of one-self, is by no means improper and unwarrantable. The greatest, most patient, and even the best of men, have been forced, by a kind of necessity, to remind their fellow-creatures of their endeavours, and even actions done for their good, and obliged sometimes to come forward, though unwillingly, and speak a little of themselves. And it is worth consideration, that what is now offered to the world, the image and representative of a great work, never yet well understood, but therein explained, and a glance of the principles of true Physic, to be the subject of another work yet to be undertaken, knowledge long desired, and which men have been long in vain aiming at, has not been suffered to proceed at last, from the body of the learned; and that, to let down human pride a little, as it should seem, and shew men what simplicity of mind, attention and perseverance, and the love of truth will do, it appears in some measure to have been the will of Providence, that it should not. If then, men will receive it, let them receive it. But if, though I hope there are some who will act more nobly—but if, on the contrary, I say, they are determined

terminated not to accept of any knowledge, nor receive any help from inferior hands, the matter for the present is then over, and posterity must look to it, when it hath opportunity.

But till somewhat of this sort happens, and the light of truth, by divine power, rises upon Physic, from this or some other quarter, miserable, without preternatural help, will be its state, and that of those who practice it. For it may be justly said, that all which was written systematically before the time of Boerhaave, or hath been since, had better have been buried in oblivion, or committed to the flames: and of practical writings in it, that all of them, except those of Hippocrates, are miserably deficient, because they neither have good observation for their basis, as his have, nor true systematic knowledge for their rational ground to rest on.

Having thus prepared the way for my future useful, and instructive, progress, in treating of the science of Physic, and, laying aside other matters for the present, entered upon this great subject, the description of Diseases according to the truth, or as accordant with the Phænomena, and therefore confirmed by observation, the handmaid of the sciences, I shall now proceed first to take notice of some precedent states of the air, and afterwards describe a subsequent pestilential constitution, a matter so much in dispute among the learned of all ages, since the time of Hippocrates, its continuance and increase, the diseases under it, and the effects and proper use of medicine in them. And having thus laid open the road, I shall not desert the weary traveller, on this rugged, unbeaten, unfrequented, and even deserted path; but by exposing, the great objects to be observed in it, to his view, endeavour to engage his attention, and quicken his progress in it: in prosecuting these enquiries, giving such descriptions, making those deep researches, and elucidating such great matters, illustrating natural things, even by things divine.

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SECTION I.

*Containing some general Observations on the Air and Diseases,
from the Year 1740, to 1750; being the declension
of a State productive of Continual Fevers, often
attended with violent inflammatory Disorders,*

IN the beginning of the Year 1740, there was an exceeding cold Winter, with a clear sky, and a continuance of frosty weather, without remission, for nine weeks, which was succeeded by a very hot and dry Summer. These were indeed, very extraordinary seasons, but will give us some notions of the general temperature of the Atmosphere, both before and afterwards. For though no Summer long before nor after this, was so hot and dry, nor Winter so severe, yet the former was usually disposed to be of an hot, and frequently also dry temperature, and the latter of a very cold one, both in the Years long precedent to this period, and also those subsequent to it, even to the Year 1750. The annual winds in March, were also very sharp and piercing; a considerable degree of purity in the Air prevailing, and a fine genial state, and wholesome mildness of it, coming on, when these ceased.

The Diseases arising in, and attendant on this state of the Atmosphere, were perfectly conformable to it. For when in bodies unhealthful, through hereditary and acquired tenacious, impure matter in the blood, with the addition frequently of a gross load, lately taken in, and a quantity of viscid lentor, thus formed by intemperance.

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want of exercise, regular sanguification and due discharge, the habit became oppressed, the effort that came on, through change of season, or by taking cold, was well supported, and with a considerable degree of firmness, both of strength and spirits. The pulse being in general so strong and hard, as not only to require, but also well bear repeated bleeding, in the acute Rheumatisms, inflammations of the Pleura, Lungs,* and Bowels, Erysipelas's, and other local disorders, attending the continual Fevers of this state. Besides, upon the rise of these Disorders the heat was generally so great, as to soon change the viscid unformed humours in the blood, into a tough size, called then inflammatory, as well as the Disorders that occasioned this sudden extraordinary alteration in them. For which reason, and to distinguish it from others, I have called the state of the Air, producing Diseases so circumstanced, or conditioned, an inflammatory Constitution.

The Fevers, attended thus with violent inflammatory Disorders, under this state of the Air, were not unkind in their nature, nor when proper evacuations were seasonably used, often disposed to prove mortal; or by wanting due critical discharges, apt to degenerate, and turn into lingering Disorders. In pulmonary cases however, when these were neglected, or not duly used, if a mortification did not come on, the consequence sometimes was an impostume in the Lungs. And where crises were deficient, the sly matter retained within, and what was impacted in the obstructed vessels of the Lungs, not duly concocted and discharged by expectoration, persons thus circumstanced and affected became subject to a slow Fever, with ineffectual efforts, afterwards, which gradually consuming the body and wasting the strength, generally at length ended in ul-

* A strong young Man, in a violent case of this kind, after losing as much blood as one Practitioner durst take away, had 100 ounces more drawn away by another in eight hours, under the very pressing circumstances of his case; 18 ounces more, at once, the next day, and the same quantity the day following, being seized with an hæmorrhage at the nose on that succeeding; after which perfect relief of the oppressed state of his constitution, he recovered with ease, and without any ill consequences from such large evacuations.

cerations of the Lungs, and the dissolution, and the profuse discharge of the tenacious and corrupt humours, by the bowels, and the Patient thus sunk under the Disorder. Consumptions also often came on from colds, in impure and weak habits, especially in such as were hereditarily subject to them. Going on according to their nature in a chronic manner, till gaining ground, and growing worse by degrees, they at length ended like others, in hectic Fevers, and consumptions of the Lungs, and the fatal train of consequences attendant on them.

From the above description, it is evident that consumptions of the Lungs, were common disorders under this Constitution. And, indeed, these with chronic Rheumatisms, Dropsies, Asthmas, Cancers, and some Palsies, for these were not yet become common Disorders, but generally affected only aged persons, with some other local and general ones of the chronic kind, made up the chief part of those Diseases incident to this temperature.

As to Agues and intermittent Fevers, during this more pure state of the Atmosphere, they were indeed violent in their paroxysms, and often in their beginning, had no intermission: they were, however, friendly in their nature, active indeed, but salutary in their efforts, and perfect in their crises, and easy of cure, when these were properly waited for, and not protracted, nor the disorder confirmed, and made subject to return, by the premature use of astringents. Quartans indeed, which usually happened in Autumn, required a different, and even very nice mode of treatment: it being sometimes necessary, when they hung on long, and had a chronical tendency, to join corroborants with steel, in smaller doses, daily, with the attenuant and gently evacuating method.

During this more healthful state of the Air, however, after the intermittents of the Spring went off, and the heat of Summer came on, continual Fevers, by reason of the sudden rarefaction of a large quantity of impure humours on their attack, incapable of being soon discharged by perspiration,

tion, during this season in particular, took a different turn. The febrile matter being apt to rise very soon, with great force into the head, and in bad cases, bring on violent delirium, and great affection of the nervous system; and at length, in fatal ones, when patients began to sink under the disorder, often subfultus tendinum. At other times and in more lingering cases, a coma supervened. But notwithstanding the violence of the Fever, in its increase, and at its height, though the pulse was strong, there never was that peculiar tension on the arteries, and hardness of it, nor were the viscid humours, wherewith the body was loaded, on a sudden, through excess of heat and action, turned into a tough size, as was the case in those attended with local inflammation, especially of the Lungs and Pleura; which called for repeated discharges by bleeding, which by reason of the greater attenuation and diffusion of the morbid matter, the Fever thus circumstanced, did not well bear. And the cause of this difference appears to have risen, as I have said, from the contrary effects of different seasons upon loaded habits; namely, from the sudden rarefaction of a quantity of impure humours, chiefly affecting the head in febrile disorders of the Summer, and a sudden determination of them, in a grosser state, on the chest, bowels, and muscles, through the suppression of perspiration, and other discharges, and contraction of the vessels by cold, on the attacks of Fevers in the Winter. Producing violent inflammations, sometimes in one cavity of body, and sometimes in another, and at others acute Rheumatisms, and making them attendant on continual Fevers, as the various constitutions of different persons were disposed so to bring them on. Not but Phrenitis itself has been the effect of, and attendant upon Fevers that have arose in the Winter*, and that for a great length of time too, as I shall have occasion to shew, in the following pages.

Notwithstanding any specific difference there might be in the nature of these Fevers, or in some of the causes that

* Vide Hippocr. Sect. v. libr. de Affect.

brought them on, or the circumstances that attended them, the efforts in both were strong, vigorous, and effectual, and frequently salutary. They being of the kind, that in natural, regular seasons, as Hippocrates hath observed, consist well and have free discharges, good and perfect crises.

In the Summer also the small Pox and Measles generally broke out and spread, in large towns; being in such close situations, in very hot seasons, often of a bad kind, and attended with a considerable degree of mortality. And this is a short, general description, of the inflammatory state.

Notwithstanding however the more pure and healthful state of the Air, above described, and its salutary effects, there were from some peculiar changes in it that were unobserved, and the gradual declension of this inflammatory State, even as early as the Year 1740, Fevers that were disposed to run through whole families, and also again in 1745: preludes to the great change that came on in the temperature of the Atmosphere, after the Year 1750.

S E C T I O N II.

*Of the Putrid State and the Diseases under it, from
the Year 1750, to 1778.*

S OON after the Earthquakes in London in the Year 1750, and the very hot weather about that time, the temperature of the Atmosphere began to change considerably, and things took a turn much for the worse. And not many Years afterwards, through some wet summers, and a great quantity of rain that fell in this season, for several Years together, * as well as at other times of the Year, the air was so cooled, and the power of rarefaction so much lessened, that it began to be loaded with gross unattenuated, and impure vapours, especially in low and damp situations, and on the decline of the Year. And though the Air retained a considerable degree of mildness, and had still much of a benign nature and influence: yet wanting its more active power, and salutary effects, with the loss of its wonted purity, which had for so many Years prevailed, the state productive of the continual Fevers, and violent inflammatory Disorders, described in the preceding Section, ceased.

It was not long before the ill effects, attendant on this unfavourable change in the Atmosphere, were felt. For through a predominant gross moisture in it, the solids grew

* From 1754, to 1764 inclusive, there were continual wet Summers according to the Observations of Mr. White of Selbourne.

relaxed, and the nerves were unstrung. And bodies, especially weak ones, began to accumulate a large quantity of viscid, unattenuated, unsanguified, and impure humours; the blood for want of due pressure, and the proper action of the vessels upon it, became of a loose texture, and a kind of Discrepacy prevailed; and abounding with heterogeneous parts, through the bad influence of foul Air, was disposed to corruption.

The consequence of this impure condition of the blood and humours, and oppressed and unhealthful state of bodies naturally weak, or rendered so by indulgence, indolence, and want of exercise, especially such as were subject to a considerable degree of hereditary impurity, was, that perspiration growing defective, in a cold, and damp Atmosphere, moist, and stagnant Air, the palate, mucous glands, and membranes of the throat, became oppressed with viscid humours, disposed to stagnate and corrupt, for want of due excretion, and through a too languid circulation in the vessels. Hence in low situations, full of foul vapours, and in places not well ventilated, a new disorder began to make its appearance called the ulcerated sore throat; white blisters arising upon it tending to ulceration.

If on the rise of the Disorder, a vomit was judiciously administered, by discharging a load of foul humours from the habit, it sometimes put a stop to it. Otherwise often a gangrene came on, foul pallid sloughs were formed, and a noisome smell issued with the breath, that communicated the Disorder to others. In which case, it was necessary to have recourse to the Bark and Port wine, to stop the progress of it, support the constitution and separate the sloughs.

But how necessary soever, on this account, this method, though it took away the effect, did not discharge the cause from the body, many persons not recovering good health, as is generally the case after Diseases, when they are properly carried off. Nor did the former always happen, for many, under this treatment, died of the Disorder; which

was of the putrid kind, attended with no inflammatory discoloration.

About the time, when this complaint first began to appear, a continual remittent Fever also arose of the putrid kind, that was generally attendant on it. This however was not always the case; for in some persons, a mortification crept on by degrees unperceived, without a febrile effort, and black spots appeared on the palate and throat, while persons so affected walked about, and in all other respects, seemed to be in perfect health; and they died suddenly, the whole mass of blood being in a state of putrefaction.

In this Fever, among the symptoms common to the rise of Fevers in general, the sickness of the stomach was remarkable, and usually discharged by vomiting, a large quantity of phlegm, and other foul humours. But besides this, there often was a sudden dissolution of the juices, which ran off in large quantities by the bowels, early in the Disease. Nor were debility and lowness of spirits attendant on these cases alone, but in more or less degree common to all. For this Fever, as I have observed, did not go on with one constant tenor, or near it, but had evident remissions, usually in the day time, and febrile returns, or paroxysms in the night; owing to the relaxing warmth of the former, and cold bracing power in the latter. The pulse also, though it felt oppressed, was soft and not hard, even when local inflammation attended; the skin also was not so hot and dry, as in the continual Fevers of the inflammatory constitution. And these things, with a peculiar white tongue, which hardly ever acquired a state of brownness, and the general want of thirst, were the characteristics of this Disorder, and distinguished it from the Fevers of the preceding state.

This putrid Fever was of an unkind nature, and disposed to have a difficult and imperfect crisis; and therefore apt to hang on long, and sometimes wear out the Patient. And if such obstinate cases happened in the Summer season,

son, when during the heat of weather, the returns varied, and the accessions of increased Fever, or febrile paroxysms, sometimes came on in the day, and the remissions in the night, the affected person during the former, was often vexed with delirium, for some length of time, and reduced by degrees, to the last extremity. And if the patient weathered this difficult and tedious state, and got through the disorder, health sometimes was not restored, till after regaining some flesh and strength, an impostumation or two were formed behind the ears, or in some other part of the body: Before matters came to this extremity indeed, a ptyalism coming on, after other ineffectual efforts had been made, often solved the Disorder.

This Fever, which sometimes, and in its worst state, spared none, but ran through whole families, without distinction of age or sex, though it was most apt to attack those of oppressed and lax habits, as Women and Children, was also common to all seasons of the year, though the Spring was most free from it. Many died of it in low situations, close towns, and places where there was not a proper current of air; while more lofty situations were free from it, for several years. And even when it began to appear in these, most persons affected with it, under good management, recovered. A proper degree of rarefaction of the air appeared to be useful, during the cold season of the year, for in one Winter, particularly remarkable for calm weather, a still Air, and Atmosphere loaded with hanging vapours, many who lived in solitary places, and houses in the country, at a distance from each other, were carried off by it; while at the same time, the town of Birmingham, where the Air was more rarefied, and the impure vapours thereby, in a great measure carried off, felt none of these ill effects.

As to medical treatment—bleeding, by reason of the relaxed state of the fibres, and tendency of the humours to putrefaction, was in general bad, both in this Fever, and the ulcerated sore throat, many losing their lives by a single

gle imprudent use of it. And even in local inflammations, attendant on this Fever, the pulse fell considerably upon a second bleeding, and few had strength firm enough to bear well a third. But giving a vomit on the attack of the Fever, as in the beginning of the putrid sore throat, was of great use and consequence.* And after this the use of antimonial attenuants with camphire, and the giving of gentle saline aperients with rhubarb, every other day, were proper remedies, when no flux by the bowels came on. And when, during the course of the Disorder, and increase of the Fever, the head grew affected, a blister on the back was a kind of specific. The cure being generally at length perfected, by a gentle dose or two of Calomel, and the use of a light decoction of the Bark, given two or three times a day as a strengthener, in the decline of the disorder, when the crisis was over, and the Patient on the recovery.

There were cases, however, that called for the use of James's Powder, and sometimes in pretty large doses too, where there was a considerable accumulation of foul humours in the habit, and great oppression of the vessels; which, though they operated powerful by vomiting and purging, and also by perspiration, were sometimes tolerably well borne, even when the Disorder had hung on some time, and persons appeared weak. This medicine also relieved many, to whom the Bark had, without judgment, been prematurely given. For there was no proper place in general for the use of this medicine, early in this Fever, notwithstanding any notions some had conceived, that it might be useful in a putrid one, of which kind this was, by its antiseptic quality. For, by bringing on a constriction of the vessels, in an improper stage of the Disorder, and also compacting together the foul humours, and by both,

* By directing, by the use of a Vomit, the abounding gross matter oppressing the body, and not capable of being attenuated during the course of the Disorder, to the stomach for discharge; a Woman in the decline of life in a very bad case, was saved. Who, after the use of this remedy, vomited up large quantities of viscid, putrid phlegm, in, and on the decline of the paroxysms, daily, during a long course of returns of delirium, and other bad symptoms, in this.

preventing the free discharge of the offending matter, and thereby protracting the crisis, Patients became more oppressed and low, after taking this otherwise powerfully invigorating medicine, when properly given, than they were before the use of it.

Beside the due administration of medicine, a proper regimen was also necessary, and that was agreeable to the nature of the Disorder. This consisted in a diluting, antiseptic, and supporting mode of diet, and the use of sub-acid liquids, light mutton broth, and small wine and water, when great weakness and lowness came on; and when a flux by the bowels attended, in supporting the Patient with thin rice-gruel, with or without a little wine, as the circumstance of the case required. For as to bread, the quantity of ingested viscid matter was so great, and for want of due attenuation and assimilation, the body so oppressed therewith, that it was in general loathed, during the whole course of the Disease, though continuing often for many weeks. Lying in large rooms, and having a free circulation of Air in them, was also of great use. And that the Patient should be got out of bed every day, and sit up for some hours in the remission of the Fever, if able to do it, was absolutely necessary. For this, by contributing greatly to support strength, and prevent a sudden increase of weakness, enabled persons to weather the Disorder, which was often long and tedious, and thereby did much towards saving many.

The intermittents of this constitution evidently partook of a debility of action, arising from the relaxed state of the solids, like that attendant on the efforts of the continual remittent Fever; not however in such a degree as might have been expected, nor were they in general of a very unfavourable kind. For the Air in the Spring still retained a great degree of purity, and the salubrious March winds returned annually, with their usual power. About the Year 1758, however, after an open fine Winter, there were some violent cases, in which the oppression in the habit was so great, having been accumulating during all the
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unnaturally mild preceding season, that upon a premature and injudicious use of the Bark, the vessels of the brain, from the constriction brought on by its use, on the other parts of the body, became suddenly oppressed, and some persons dropped off unexpectedly, to the great surprise of the unwary Practitioner.

As to the chronical Disorders of this period, it was very observable, that palsies were become much more common, but that there were fewer consumptions. And this intemperature of the Atmosphere, and the Diseases attendant on it, continued from the Year 1750, to 1778. Continual Fevers after 1760, appearing to increase in violence, and after 1770, and particularly in 1772, growing so bad, and attended with such great pains and soreness over all the body, such an increase of symptoms and malignity, as to shew a still stronger tendency to the nature of the pestilential Fever, that followed them in 1778.

SECTION III.

Of Pestilential Constitutions.

PESTILENTIAL Constitutions are of various kinds and degrees, from those high states productive of the Plague itself, down to those, producing diverse other pestilential Fevers, of a milder kind, the rise of one of which I am about to describe; each of them as brought on by intemperature of the Air, as common to all, and communicable by infection, being a kind of Plague.

CHAPTER I.

Of the Local Pestilential State of 1778.

THE excellent Hippocrates, after describing in the first book of his Epidemics, three antecedent, successive annual states of the Air, gradually productive of a multitude of Diseases, of violent, obstinate, and uncritical Fevers, the burning ones that
arose

arose in the last state, being so highly malignant, and attended with so great dejection of spirits, as to have a strong tendency to a pestilential nature, opens his second book with a description of a subsequent, local, and also temporary pestilential state, that came on in Cranon, an hot town in Thessaly, where there were warm Baths, and lying in a low situation, with a Southern aspect.

After describing the highly inflammatory state of, and great heat in the Carbuncles, and the ill-conditioned state of the humours, and the violent and obstinate nature of the burning Fevers, which rose under this pestilential intemperature, and observing that though burning Fevers arise at other times of the year, the Summer is most apt to bring them on, and hot and dry ones to increase their force, and taking notice of the unfriendly and ill-conditioned nature of Autumn, and that the Spring is the most healthful season of all, he with great observation, penetration, depth of medical knowledge and sagacity, observes, that in constant, natural, regular seasons, and a temperate state of the elements, Diseases come on that consist well, that is, are of a consistent and regular nature, and pass easily off; and that in inconstant, uncertain, and irregular ones, those that neither well consist, nor have easy discharges; declaring the ill-consequences of the latter, and laying down thus the causes, nature, and effects of Diseases, particularly Fevers, so far as they are brought on, and their efforts regulated by the state of the Air, in a few words.

After this, he with great propriety, enumerates the various methods which nature uses, to carry off foul serous humours, rendered so tenacious, acrid, and even corruptible, through extraordinary heat, as to become infectious, and pestilential; by throwing it on the surface of the body, in eruptions on the skin, efflorescences, &c. in the beginning, and by desquamation, &c. in the latter end of Fevers; and also the various other ways she takes for disposing of it, by discharges from the emunctories of the body, &c. thus characterizing many Diseases of the pestilential

lential kind. And the remaining part of what is very valuable in this excellent book, as descriptive of a supervening, and compleat pestilential state, existing at the same time, in two different parts of Greece, is the description of the peculiar state of the Air at Perinthus, and of the irregular nature of the Disorders, that, in consequence, arose there at that time under it, and the relation of Cases in it, and the beginning of the third; some of which perhaps happened in Cranon, but others certainly at Perinthus, and in the island of Thufus, before the coming on of the immediately consequent general pestilential Constitution, described in the latter.

Now considering the immediate connection this book evidently enough hath with the first and third, it is truly wonderful that Galen and also one of our Countrymen took them for detached pieces. Friend pointing out the two latter as more perfect parts of medical writing, in the Epidemics, worthy of great study and attention, and as if the three books had no intimate union, nor even any connection, with each other.

After premising thus much, concerning the local pestilential state described by Hippocrates, and the three preceding states, or conditions of the Air, preparatory to it, I shall now proceed to shew that, in like manner, after a long continued moist, and impure state of the Atmosphere, productive of putrid Diseases near thirty Years, and preceded by the violent extremes, and great changes of the very hot Summer of 1775, and severe Winter following it, the hot Summer again of 1776, and remarkably cold Year of 1777, in which old people began to drop off very fast, all of which were preparatory to it, a local pestilential state came on in the center of England, and the scarlet Fever and sore Throat broke out in the very hot town of Birmingham, in the beginning of May 1778, and continued, during a course of very hot and dry weather, all that Summer. The Disorder shewed itself also in some of the neighbouring Towns, where the sun's rays were reflected from a dry sandy soil, and gravelly bottom; but it raged with the greatest violence, and its most fatal effects were felt

felt in the former place, where the heat was not only reflected, but concentrated, and the circulation of Air imperfect.

Though this highly pestilential Disorder, and the intemperate state of the Air producing it, at first were local, like that which occasioned *ανθρακες* in Cranon, described, as already mentioned, by Hippocrates, in the second book of his Epidemics, yet this local pestilential state was not temporary, nor went entirely off in the Winter, as that did. For the great heat of the Summer had such an effect upon the succeeding seasons, that the following Winter was remarkably mild and open; little rain falling from the great rarefaction of the Air. Though, by reason of the great quantity of vapours which rose from the earth, and were necessarily condensed, in this cold season, and floated in the Atmosphere, it was often so full of them, and those sometimes very near the earth, that the sun was, at times, obscured, for many days together. So that, though the Disorder abated much in the Winter, it did not go wholly off, but appeared, in a few instances, in several places, even during this colder season of the Year. The spring also was uncommonly warm, and, in the succeeding seasons, the Disorder spread through England and also into Scotland.

This local pestilential state, whose intemperature was so great, and the Air so full of the particles of light or heat, as, in the absence of the sun's rays, to bring on several times, on nights, a fiery kind of an aurora borealis, rising from the horizon, on all sides, and meeting vertically in a center, evidently consisted of an hot, dry, and also impure Atmosphere, and the want of rain, and fine moisture, or dews*. For the accumulated foul vapours of former years, during the putrid state, being suddenly rarified by

* If we refer to the description of the Pestilential Intemperature, brought on by divine interposition in Egypt, we shall find that ashes of the Furnace miraculously multiplied, and spread through the Air, were both the sign and cause of an hot, dry, and foul state of it, productive of the boil with blains, a kind of carbuncle.

great heat, and the finer parts evaporated and carried higher, left a gross kind of impurity behind. So that, notwithstanding the great force of the sun, for many weeks, or rather months, the Air never grew pure, but was always subject to some degree of an hazy foulness. It being at the same time, so rarified and the sky so locked up, that rain in general did not fall freely down, neither in this, nor the following year.

And perfectly similar to this state, was the effect produced by it on human bodies. The gross humours gathered together under the putrid Constitution, and accumulated in the habit, especially those of Women and Children, under a relaxed state of the vessels brought on by it, being suddenly with the whole mass of blood, for want of due attenuation and secretion, and a tolerable degree of purity and ventilation, so heated and rarefied, as to force the latter out of its proper channels, and make it appear all over the surface of the body, in scarlet efflorescencies. The internal membranes also partook of the Disorder; the throat grew sore, and upon inspection, exhibited a very inflammatory appearance, totally different from the pallid hue of the putrid one; and proceeding from the great heat of the impure stagnating humours, and highly rarefied vapours in the body, similar in some measure, to what happens even in the plague itself; causing ulcers, gangrene, and sloughs. Nay the acrimony of the suddenly heated and retained foul juices, tending to dissolution and putrefaction, in some cases, was so great, as to bring a violent kind of colour on the skin, and afflict some with such restlessness and inquietude, and other violent symptoms, that the persons suffering under them grew clamorous, and died in extreme torment and anxiety. Some had black spots upon them before death. And in many of those who recovered, in all of whom the cuticle separated, and sometimes the nails, the Disorder for want of due discharges, became subject to a chronical termination, and dropsical tendency, which required the tenacious foul humours to be carried off by the force of calomel, and the tone of the

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fibres to be restored by powerful corroborants, such as the Bark with steel.

The virulent nature of this highly pestilential Disease was so great, that people were seized with it in three days after receiving infection. And with it arose a burning Fever of a peculiar kind, which followed the type, or remittent form, of the putrid Fever of the preceeding constitution: this putting off by degrees, as it were, its own nature, and becoming essentially different in all other respects. For the flesh was more hot, and the skin more dry, in this than in the putrid Fever. The tongue also, instead of being white and moist, was brown and dry, with a great degree of thirst; and the heat of the breath sometimes so great, as to be distinguished by a person coming fresh into the room, at a good distance from the affected one. I am therefore the more surprized, notwithstanding a similar remission in the day time, in both, and an increase of febrile symptoms in the night, that these two Fevers so essentially different in themselves, should have been ever since, in general, so universally confounded together, and too often treated with a similar method. For what was proper, or at least tolerable, in the putrid Fever, particularly the use of Bark and quantities of Port Wine, was highly detrimental, nay often destructive in this, at least in its beginning, and during its increase and violence.

The pestilential Fever of 1778 with sore throat, a symptom or disorder peculiar to Pestilencies, and attendant on the plague itself, *κατὰ κλύσον Græcorum*, or following the nature of the burning Fever of the Greeks, required to be treated with a most cooling method; the sick calling out for cold water, oranges, and every thing that abated internal heat. It was also necessary to let the Air have a free circulation in their chambers. Nor could they sometimes bear a spoonful of Wine diluted with a good portion of water without complaining of the internal heat it occasioned, and the pain in the head arising from it, even when great lowness and weakness had come on, in the decline of the Disorder, and they were so reduced, as to require
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the use of it to support them under it. And even in the violent fluxes by the bowels, that sometimes came on about this period of it, it was often necessary to temper it with vinegar. Also in some violent cases of the scarlet Fever, or that attended with efflorescence and eruption, the internal heat was so great, that though the windows were open, and the room properly disposed for the free influx of the Air, yet some Patients could not even then bear the slightest covering. The small vessels of the eye also in some were so filled with blood, that forced itself into those not appointed for its reception, that the cornea in them became as red as those of Ferrets*. And the brain and its membranes undoubtedly, in many cases, took a share in the general Inflammation.

In the treatment of this latter Disorder, though blisters seemed to be called for, they often did mischief, by increasing heat and irritation. Nothing in general was found so eminently useful in it, as early and repeated vomits: and even in advanced cases, they relieved often, under the greatest exigency. A vomit in the beginning was also of the greatest use in the burning Fever without eruption above described, and also saline aperients with Rhubarb, at proper intervals. For through the discharge, by these means, of part of the offending matter, and the abatement of heat in consequence thereof, a general dissolution of the humours, producing sometimes a fatal flux by the bowels in the close of the Disorder, was often prevented. But every heating, irritating, and also confining method, by the use of the Bark and Port Wine, was in general bad: as, on the other hand, was that of reducing the Patient too much in the beginning of the Disease†.

* See Doctor Withering's description of the Disorder, in his Treatise upon that subject.

† A medical Gentleman has informed us, that he relieved his Patients in the scarlet Fever by bleeding and purging. But however useful such a method might be, in the more northern situation, and cool and bracing air of Scotland, where he practised, it was by no means to be used with success, as the Disorder raged, and was circumstanced in the Year 1778, in the interior parts of England.

It is worthy observation, that the burning Fever without eruption sometimes hung on for two or three months, and that the tenacious matter occasioning the efforts of it, would not separate and go off, till it ultimately fell upon the lungs, and was there concocted and discharged by a plentiful expectoration. As to all other matters relating to its nature and treatment, I must refer the reader to my Treatise on that subject.

Attendant on this local pestilential state were the acute Rheumatism†, Dysentery, small Pox of a bad kind, Measles and Chincough: and also of chronical Disorders, many Consumptions, Dropsies, and Palsies, from the influence of the same Atmosphere.

CHAPTER II.

Of the General Pestilential Constitution, in the Year 1779.

THE great heat of the Summer of 1778 had such an effect, as I have observed, on the next Winter, that it was mild and open throughout, though so abounding, at times, with vapours, that the sun did not make its appearance for a fortnight; rain seldom falling, except a few

† A young Gentlewoman treated with the Bark and Opiates, in a case of this kind, lost the use of one Elbow, by a perfect Anchylosis, and was very near losing her life.

drops or in small quantities, and for the most part in the form of mists. In the spring likewise the March winds did not blow, with their usual sharpness and severity; nor was there any weather, that could be called cold, till towards the latter end of April; when there were some frosts, in the night, very sharp indeed, followed by some cool weather, in the remaining part of that month, and the beginning of May, which gave some check to the extraordinary warmth of this season, at least a month forwarder than usual; not however so great a one, but that, in consequence of the gradual increase of warmth, there was some exceeding hot weather, in the following Summer, particularly during three days in July. When with a burning sun, and clear sky, dry weather, and no circulation of Air, the heat was so intense, as to keep people who sat in the house, with the doors and windows open, in a continual sweat†.

The common Thermometer of 90 degrees, rose at this time up to 77. But after the heat of the Summer was over, the air in Autumn was more temperate and natural for that season, till the setting in of cold weather, which was pretty early this year, in the latter end of November, it continuing through December and January. In this Winter season, through great moisture and a foggy foulness in the air, such as I never before observed to be in the last month, joined with a generally clouded sky, the weather

† In the middle of the last of these excessively hot days, a most profuse flux came on immediately after parturition, in a Woman who had been used to drink pretty freely; the fatal effects of which were prevented, by the timely use of the cold applications, recommended in my Treatise on the Pestilential Constitution of 1778. — This is one of those dangerous Disorders, peculiarly attendant on putrid, and pestilential Constitutions. And by the sudden violent discharge of an heated, acrid, putrid, and dissolved blood, in such cases, many Women, for want of the immediate use of proper powerful methods to restrain it, as well as support them under it, have lost their lives. There is a great error now very prevalent with many Practitioners, that of neglecting drawing away a little blood, at a proper distance of time before delivery; which would not only enable Women to use due moderate exercise with safety, even to that time, but also be productive of easy labours, and generally prevent those dangerous consequences that too often otherwise happen in them.

was exceeding raw, severe, and pinching, and withal extremely changeable, and unsettled ; the predominant moisture in the atmosphere frequently disposing it to thaw in the day, though it froze very sharply in the night, especially after any little fall of snow or rain. Nay the weather was so various and compounded, as it were, through different temperatures, in the several regions of the atmosphere, that it sometimes rained, while it froze sharply on the earth. And what is very remarkable though the air did not feel sharp, and the frosty weather was not nearly so intense, as I have known in many former years, yet the real coldness of it sunk the common Thermometer down to 13 : it being just in equilibrio in the cold season, with what it had been in the hot one, and falling in the Winter as low in proportion, as it had rose in the extraordinary heat of Summer. Such was the nature of the Year 1779, consisting of high and low temperatures, and abounding with foul vapours. The Spring uncommonly warm and unseasonable, the Summer intemperate, and the Winter compounded of various kinds of weather, but though changeable, severe.

Agreeably to the unnatural warmth of the season, bad burning Fevers, attended with not only great languor and weakness, but also dejection of spirits, began to shew themselves early in the Spring*. And when the Summer came on, the scarlet Fever and sore Throat, spread itself in England, and also into Scotland. While the center of the kingdom where it first broke out, and which felt its severity last year, was almost free from it, and, on the whole, healthful in comparison of other places. A direct proof, that retained, and accumulated tenacious, acrid matter, which had been discharged from the constitutions of many persons, by former efforts, the preceeding year, is the grand predisposing cause to disease, under any constitution. Its ill effects being aided, by relaxation and debility, general and particular, and often brought on more sud-

* In a lingering case, even an old Woman had impostumes in the armpits ; but through the quantity of tenacious corruptible matter in the body, and inability through age, they did not prove critical, but she gradually sunk under the Disorder.

denly in a peculiar form and manner, and also sometimes raised to a great height, by intemperate heat and cold, and an impure air.

As the Summer advanced, the burning Fever appeared in so malignant a form at Adderbury, a little Town near Banbury in Oxfordshire, that it was called the plague, for the pestilential putrefaction attending the Disorder, was so great, that it destroyed several persons in less than twenty-four hours. Six were known to have been buried in this small place in one evening, and fifty were said to have died there, in the short space of five weeks. About the same time a pestilential Disorder, in the form of a Fever and Flux, so raged at Brest, on the coast of France, that according to accounts received, 1400 out of 2000 English Prisoners died of it, in the Prisons there; and so contagious was it, that most, if not all the persons of the Faculty who attended them, were said to have dropped off likewise. But this fatality was nothing in comparison with what soon after happened in the French and Spanish Fleets, in their voyage to, and when before Plymouth. For the Ships being foul, and also full of men, the Disorder raged so among them, that many thousands died of it. Report then said, not less than 10,000, while other accounts raised the number to 20,000. Such were the dreadful effects of the extraordinary intemperature of this season. And thus a little more to the South, fell the weight of the great destruction, attendant on the much increased violence, of the pestilential state of this year.

The uncommon heat of weather this Summer, had such an effect on foul habits, by rendering the gross humours more tenacious, and dissipating the finer parts, that towards the latter end of it, or the beginning of Autumn, many began to have scabby faces and eruptions on the body*. And when the cool weather came on, and these foul humours were thrown inwardly a kind of Influenza

* A whole School of Boys was thus affected, except two or three, who had lately had the small Pox in the natural way.

prevailed, and the burning Fever began to be complicated with a Peripneumony: a Disorder which had made its appearance before in the Summer, and that arose in this form, this very Year. Not even in an Inflammation of the lungs however, joined as it was with a burning Fever, under the present Intemperature, was there in general much indication for bleeding†. Therefore, by reason of the quantity and ill quality of the matter thus determined to, and impacted on the lungs, its strong tendency to quick putrefaction, the want of ability to bear proper evacuations, especially by drawing blood, and the want of time for an expectoration of it to come on, the Disorder was often soon fatal; a gangrene probably coming on attended with a corruption of the whole mass of blood.

In the variable, cold, foul and raw weather, in the Winter, the tenacious, corruptible matter was determined to the bowels, and an acute Dysentery appeared. Here the local Disorder was in the bowels, instead of the lungs, but the original disease the burning Fever was the same in both. I have already observed that an acute Dysentery attended the pestilential state of 1778, and that great numbers died, on the coast of France, and before Plymouth, of a fever and flux this Summer. But this pestilential Dysentery was epidemic in the succeeding Winter, and therefore of a very peculiar kind, from the force of two extremes; the foul humours rendered sily by the preceeding intemperate heat, being now confined by cold. Hence the usual difficulty in parting with them was much increased; several died of the Disorder; others were much tortured by it; and it was apt to hang on long. It was chiefly fatal to persons beyond the middle Age, whose juices are grown tenacious, and difficult of separation; and to children; who from the natural weakness of their bowels, and

† This may shew Practitioners, that the mere distinction of Disorders by names, knowing this or that kind of Fever, or where an internal inflammation is seated, will not enable any man to treat them with judgment; and that without good observations on the reigning constitution of the Air, and its influence upon human bodies, no good knowledge, in the theory and practice of Physic, can be obtained.

Constitutions in general, were unable to bear the violence of the Disorder.

It is very peculiar however, that notwithstanding the violence of this complaint, and the great difficulty of getting off the offending matter, most persons, even in its worst stages, had a regular natural stool daily. But nothing shews its extraordinary nature in so strong a light, as the great variety of the effects of medicine, in different cases. For what was beneficial to, and relieved one person, had no good, or an ill effect on others. A vomit of Ipecacuanha in the beginning of the Disorder sometimes appeared to be useful, at others to weaken too much, and reduce the Patient. Infused doses of it and Rhubarb, generally useful in other Dysenteries, by reason of the very irritable state of the Intestines, could hardly be borne at all, at least in any tolerable dose, and the latter only in the smallest. The medicines most useful were decoctions of Tamarinds, after Zimmerman's method, or whatever resisted the pestilential halitus, and putrefaction, tempered heat, and abated acrimony. As the fixed Air arising from alkaline salt and vegetable acid, taken in the act of effervescence, and oil of olives, mixed with juice of lemons. And when these did not answer, and nothing but the actual separation, and discharge of the pestilential tenacious, putrefying, acrid matter, would relieve, a small dose of calomel, joined with a gentle cordial, and a few drops of Thebaic Tincture, would sometimes prove beneficial. Which also, if given early, after the use of an emetic of Ipecacuanha, in some proper cases that would bear it, would sometimes put an effectual stop to the progress of the Disorder. And it is very remarkable of this medicine, thus judiciously given, that it never seemed to irritate the intestines, or increase the bloody, ichorous, and sometimes foetid, and very offensive discharge, but on the contrary, gave substantial relief to the patient, increased the size of the stools, and thickened their consistence. Nor upon due consideration, does any thing appear extraordinary in this. For as the disorder is attended with great obstructions in the coats of the intestines, from most tenacious matter determined to, and sticking in
their

their vessels, what opens them, attenuates and discharges it, must be the most effectual method of cure; as I have frequently had occasion to remark, in the successful use of it in less difficult cases.

Whatever method of cure however was instituted, and it was most difficult to fix on any at first, as I have already observed, that would answer, the use of light solutions of Gum Arabic, and of broth Clysters, made a necessary part of it; and by such means, with some of those above mentioned, many were relieved. But there were some cases of so fixed a nature, so obstinate and dangerous, that nothing seemed able to reach, or proved the least beneficial in. In a few of the best, perspiring towards the end of them proved a substantial relief, and solved the disorder. But some of those who recovered from others, were so harrassed with violent pains, and the long continuance of the Disease, as to be perfectly emaciated and worn out; nor gained relief at last, but by length of time, and the gradual though slow decline of it.

The Agues and intermittent Fevers of this year were not only peculiar and bad, by reason of the quantity of foul humours collected in some bodies, during a warm winter, and their proving epidemic in bad situations, through the whole Year, but also as following the general pestilential nature of the continual Fevers, and being wholly destitute of, or having very difficult crises. Becoming therefore tedious cases, and hard to cure, especially if the Bark was injudiciously given early. The very tenacious matter of the disease being apt to stick in the fine vessels of, and produce obstructions in the Liver, and glands of the Bowels; leaving thus a chronical Disorder behind it, or at least a disposition to it. Hence the propriety of the use of Vomits, and aperient medicines, and a dose or two of Calomel, by way of attempting to dislodge, and discharge such viscid humours, and bring forward or compleat the crisis, before giving so astringent a medicine, is fully evident, as well as that of postponing the use of it as long as possible; that by obviating all difficulties beforehand, the danger of returns,
or

or of other consequent Disorders, might be prevented. And if the Liver was already affected, obstructions formed in it, or the bile so viscid that it would not flow, that it was absolutely necessary, by the use of aperient medicines, saline, saponaceous, and vegetable detergents, and sometimes the use of Calomel, or some other proper method, to remove such obstructions, give liberty to the vessels, and promote a free circulation in them, before the administration of constringing medicines of any kind, need not be insisted on.

Such, as above described, were the very ill effects of the dangerous, obstinate, and lingering Disorders, attendant on a very cold, changeable, and moist Winter, following two very hot and dry Summers. We have however hitherto had chiefly to do with the description of the powers of the latter, in bringing on and confirming pestilential states, as is the general case. We shall however have occasion now to take notice, that unseasonable cold weather and great moisture, are concerned, as well as intemperate heat, in the continuance and increase of them.

Some persons died of Apoplexies, and the Gout;* and chronical diseases, went on as in the preceeding Year. Persons however in Declines, after the very cold weather in the latter end of this, and that in the following Year, began to have remarkably pallid countenances, and a very unhealthy look, and also those labouring under other chronic Disorders.

* A remarkable case, wherein both these Disorders were complicated, happened in a Gentleman, rather in the decline of life, who having had a fit of the Gout, came down as usual after it, thinking himself well. So little of the gouty matter however had been disposed to separate, or was then discharged, that he had an attack on the brain, and died of an Apoplexy, that very day.

CHAPTER

CHAPTER III.

Of the Continuance and Increase of the Pestilential Contagion, in 1780.

AS last year was remarkable for uncommon warmth in the Spring, a month forwarder than usual, and excessive heat in the Summer, that of 1780, following the cold raw nature of the preceeding Winter, was as remarkable *tempestatibus non tempestivis*, taken notice of by Hippocrates in his Epidemics; an exceeding raw, cold wind, blowing from the north-east, through the greater part of both these seasons, and making them a month, or six weeks, backwarder than common. The month of February indeed was tolerably mild and temperate; but from thence even to the end of June, cold and also dry weather predominated, nor did the latter month grow warm, nor the weather open in it, as in former years.* Nay a north-east wind reigned through July, and even to the middle of August, in the hotter parts of the year. And yet, notwithstanding all this, by reason of the general foulness of the atmosphere, the quick, searching, pure, and salubrious air, and weather of March, was wanting to this year; and there was also a great deficiency of dew. It is true, this very cold weather

* Even so late as the 26th of May, and in the southern parts of England, there was a most severe frost, for that season. And four hours after sunrise, though it shone out bright, Farenheits Thermometer stood at 46. The 28th it was at 75. and on the 29th, at 2 in the afternoon, in a situation well placed for observation, it was at 81, the greatest heat of 1778. The next day, at the same hour, and in the same situation, at 57. See White's Natural History of Selbourne.

was sometimes interrupted, by some exceeding close and hot, with the wind in the opposite point the south-west. For the intemperature of last year still went on, and there was great heat in the air at times; but though these fits were violent, they were of short duration. For, besides an intemperate and unhealthful state of the air, not only in respect both of heat and cold, but also foul vapour, the weather began now to be subject to frequent, and sudden changes†. This year also there began to be violent and destructive hailstorms.

By reason of the excessive coldness in the preceeding seasons, the cold weather began to set in this year, as early as the latter end of September: this being succeeded by the autumnal rains, more or less of which fell every day for three weeks together. And during this time, or soon after, cold and gross vapours became so predominant in this solar system, that the due returns of light were not made as usual, and there was so great a defect in the preparation, or return of it, the absorption of luminous particles into the sun, and consequent emission of its rays, that several black spots, much larger than those frequently seen, were, by the help of Telescopes, observed upon its body. And one in particular, gradually formed itself, of so enormous a size, as to be equal to a tenth of the sun's breadth.

This remarkable Phenomenon was succeeded by tempestuous northerly winds blowing raw vapours, and having an uncommon degree of austerity. And after these were great falls of snow, towards the latter end of Autumn, and in Winter. Also much rain fell in the month of December, and likewise even in January. At other times a cold, raw wind, blew a foul vapourish mist, sometimes out of one, and sometimes out of another, of each of the four cardinal as well as other points: the vapours and foggy foulness stagnating so in the Air, in calm weather, that the sun and stars did not make their appearance sometimes for a fortnight or three weeks together. And by means of

† See the Note in the preceeding Page.

this extraordinary moisture on the one hand, and of cold on the other, the weather became so changeable, sometimes freezing and then suddenly thawing, and subject to such strange variations, and so mixed and complicated, that it sometimes froze, thawed, snowed, hailed, and rained, all in the compass of 12 hours. And yet by reason of the foggy state of the Atmosphere, the Winter could not be called severe, on account of any great effect it had upon Plants ; which flourished all through it, notwithstanding the pinching rawness of the Air. So much of the remarkable nature of the decline of this year, of which I shall again take particular notice in the next.

The effects of this extraordinary intemperature were great ; as might be expected from its unseasonable, inclement and inconstant nature, and the great impurity of the Atmosphere.

These ill effects were seen in the continuance of lingering and ill-conditioned Agues and Fevers destitute of crises, and attended with the greatest debility. And in the unseasonable cold weather in the latter end of June, many elderly persons dropped off in Apoplexies and Palsies. After this, in the middle of Summer, Fevers were remarkably obstinate, long-continued, and difficult of discharge ; infections, attended with inexpressible soreness all over the body on the first attack ; and persons apparently recovered from them, were subject to frequent relapses*. Such was the state of Diseases in the Spring and Summer§.

But though Diseases raged in this manner, in many places, their attacks were not so numerous in the internal parts of the kingdom, about us, till the Autumn and Win-

* In a child, though it perspired freely after the paroxysm, and the Fever seemed to abate and be going off, it constantly recurred, till after many ineffectual efforts to attenuate and throw off the tenacious matter, worn out at length it died comatose.

§ This Summer, as in the last, there was said to be a great mortality in the Spanish Fleet, and also among the English Sailors and Soldiers at Chatham.

ter, when the tenacious matter, prepared and retained by the inclemency of the Spring and Summer, was accumulated and began to abound in unhealthful bodies, and was withal greatly disposed to putrefaction. Then indeed Fevers became very epidemical. And before this, in the beginning of Autumn, ophthalmies were very common, and many subject to Boils†.

The Air by the middle of Autumn was so excessively cold and raw, and had such an uncommon degree of austerity, as to seem almost capable of curdling the humours which have little or no motion‡.

About this time, after a dreadful tempestuous thunder-storm in and near London, in which the lightning, in an uncommon, awful, and tremendous manner, ran along upon the ground, that city and its environs were struck with the pestilential Dysentery.

In the latter end of Autumn, and in Winter, for burning Fevers continued through the whole Year, many fatal cases occurred: persons affected with them often dying in four or five days, and sometimes in two. The Disorder being attended with such a corrupt and even cadaverous stench, and that before death, in Workhouses and other confined places, where many persons lived together, and there was not a free circulation of Air, as could hardly be borne by persons who visited them. The Measles also which had been epidemic for some time, and attended these pestilential burning Fevers, as the Small Pox and Chin-

† I shall have occasion to make some remarks on the change of these Disorders from external to internal impostumes, in my future observations on the continuance and increase of the Pestilential Constitution in succeeding years.

About this time a bad gangrenous erysipelas occurred, from which the Patient, being young, recovered.

‡ A Woman afflicted with the colic, said what she vomited up, had the taste of Alum; so great an effect had the Air upon the foul humours.— And a young Man about 25 Years of age, by travelling in a Waggon, had an attack of a Fever complicated with a paralytic seizure in one leg, attended with a convulsive twitching.

Cough

Cough did the Scarlet Fever and Sore Throat, became now very fatal in large Towns.

In the attacks of Fevers, in the very cold, raw, and damp weather in the Winter, many complained of a peculiar kind of coldness, similar to that of being wrapped in a wet sheet†. This sensation continued frequently for 24 hours and in some extraordinary cases, for three or four days. Agues were epidemic at this time, several persons had the Jaundice, and some were attacked with inflammatory obstructions in the Bowels, under the regulation, as is always the case with such Disorders in general, of the reigning constitution and Fever produced by it*.

In the latter end of Fevers many became subject to Coughs, the morbid matter falling ultimately on the lungs for discharge. For they were very uncritical, apt to re-

† A Man who had been subject to a cough for some time, was attacked with this peculiar universal coldness attended, with a difficulty of breathing, and so great a languor, as no cordial could relieve: nor had attenuants any better effect, in preventing the general stagnation and putrefaction, that came on soon after.

A Gentlewoman of a middle age was also attacked with this coldness on the coming on of a Fever. She had had one before in the Summer, attended with the Jaundice, and such an irritable state of the bowels, arising from an inflammatory disposition of the fibres, brought on by the intemperature of the Air, and the unfriendly effects of tenacious heated humours, and such a want of mild, balsamic principles in the blood, that neither mercurials nor cordials could be borne; Rochelle Salts and Rhubarb only agreeing with her, or some such cooling aperient. Nor did she get the better of this feverish indisposition till she afterwards, in the Summer, had a Fever with a sore Throat, attended with the dissolution and discharge of the tenacious, acrid matter by impostumation. In the present attack Rhubarb with Tartar of Vitriol, and antimonials with camphire agreed well with her, and gave her relief: and after this she had a pretty good state of health for some years.

During this Winter season, a person of a middle age died after an ineffectual effort of the Gout; the gouty matter returning from the extreme upon the stomach and internal parts, through an inability of nature to attenuate and discharge it.

* A Gentlewoman in the decline of life, when apparently much relieved by losing a little blood, and the use of a dose of Calomel, in an inflammation of the bowels, sunk away and soon died upon an injudicious repetition of bleeding.

turn,

turn, and in the end prove fatal, at least by terminating in chronical Disorders.

In consequence of the very intemperately cold, raw, and damp nature of this, the Fevers of the rising year, which came on soon after its beginning,* were marked with a new symptom, or rather appearance, namely, that of an uncommonly heavy look of the eyes; which, and an oppressed pulse, have been characteristicks of the reigning burning Fevers, both continual and intermittent, ever since; as well as criterions whereby to judge, of the various degrees of oppression therein, and the malignity thereof. For in some the attack was slight, and the Disorder went easily off, but in others was accompanied with a great degree of violence and obstinacy†. And not only great langour attended them, but now also dejection of spirits; a tendency to both of which there was in all, even in the mildest.

Among chronical Disorders this year, there were several cases *Choræ Sancti Viti*. Instances of Insanity|| also began now to be very common, and likewise Cancers.§

* See Hippocrates's description and account of the time of the rise of Fevers in *Statu Pestilenti*.

† A Man, by imprudently going out in the beginning of a Fever, was laid up of it two months, attended with comatose symptoms; and so greatly reduced towards the end of it, that it became necessary to support him by the use of a light Decoction of the Bark. But even under these exigencies, it was not given, till after the use of attenuants and even Calomel itself, in small doses, and the constitution had also received some relief naturally, both by the bowels and the skin, in the course of the Disorder.

|| A Gentleman affected with an hereditary Disorder of this sort, after receiving relief from the use of Cheltenham Water, upon using Sea-bathing afterwards by other advice, had a return of it, and has remained in a state of Insanity ever since. And a Woman between 40 and 50 years of age, afflicted with the same Disorder, after using cold bathing long ago, remained in the same unfortunate condition for some years, and has been subject to frequent fits of Insanity ever since.

§ A Gentleman of an highly scorbutic habit subject to violent attacks of pain in the head, who had injudiciously used the cold Bath and the Bark formerly for it, without taking proper means to discharge, or at least lessen the radical cause of his Disorder, had now, in the decline of life, a flux of dangerous humours to an Issue in his arm, which proved soon fatal.

There were also many Consumptions,† and in the Winter Asthma‡.

CHAPTER IV.

Of the Continuance and Increase of the Pestilential Constitution, in 1781.

THE inclemency and intemperature, unseasonableness and irregularity of the four preceding years, went on and increased in this; and all kinds of bad weather not only abounded, but were mixed in an uncommon manner in it. But though the air was subject to frequent changes, and the wind varied through all the points of the compass, and there were unwholesome, tempestuous, cold, raw winds, and great falls of weather out of all of them, yet they came chiefly out of the western points. And though there were sudden transitions into opposite ones, sometimes two or

‡ A young Gentlewoman who had lately lost both her Sisters by hereditary consumptions, and who herself was attacked with a violent Tenesmus, shewing the efforts of nature to discharge the tenacious, acrid matter, which is the radical cause of those disorders, and was therefore in great danger of falling into the like complaint, upon opening an Issue by Caustic in one Thigh, received relief, and was restored to a tolerable though not perfect state of health; which she still enjoys after marriage, and having several children. See my observations on the use of Issues, especially in Pestilential Constitutions, in my Treatise on that of 1778.

† In the middle of one of the hot days in Summer, a violent and dangerous flux after Parturition occurred, as last year, which was restrained by the same methods.

three

three times a day, and continual alterations of the weather from the unseasonably warm, close, and intemperately hot, with thick mists, and sometimes stinking fogs, that infected the air, into the cold and raw, with a foul atmosphere, and obscure sky, yet the power of heat so predominated, that the Spring and Summer came on early, and the whole year was quite different from the last; the great heat of Summer having such an effect on its declining state, that it was at times very warm in the middle of Autumn, and uncommonly so, for the season, even in the midst of winter.

This extraordinary year was preceeded *Autumno, obscuro, nebuloso, cum Aquarum abundantia*, as that productive of the pestilential state, described by Hippocrates, with a foul Atmosphere; the natural consequence of two such hot and dry years, as those of 1778 and 1779, and the last extremely cold one. And this obscure and cloudy weather, with rain or snow, continued not only through the middle and latter end of Autumn, but the Winter also; there being hardly three fine days together, from the 9th of October to the beginning of February. And the transient gleam of fine weather which then came on, was soon followed by tempestuous westerly winds, with great quantities of snow and rain; and afterwards in the returning Spring, by some unseasonably warm, and at times, very hot and close, accompanied with light mists, but chiefly by thick, stagnant, and sometimes putrid fogs. This weather being interrupted by frequent returns of, and sometimes sudden transitions into, the cold and raw with a foul atmosphere; and there being very few of the purifying winds, and little or none of the clear wholesome air, peculiar to this season of the year.

§ Towards the latter end of March, one Evening appeared a remarkable Meteor, in the form of a luminous arch, stretching across the hemisphere from east to west, shewing the predominance of the particles of light and heat in the air at this time. And that cold was also very powerful at others, we had proof sufficient in having soon afterwards a day as cold as is usual in the middle of winter. For the extremes of the heat of the Years 1778 and 1779, and the cold of 1780, still went on attended with a foul atmosphere.

As the Spring advanced the same weather went on, with frequent variations of the wind, though much addicted to the western points, from one point to another all round the compass, and rain out of all of them, and frequent changes into opposites. In the latter end of this season, however, the rains abated, and the earth grew dry. But this transient return of somewhat clearer weather, as in the beginning of February, was soon broke off by foul fogs, blown by the wind out of the east, and the return of a foul, squalid, cold and raw air. And the Summer coming on very soon, from thence till after the autumnal *Æquinox*, there was a return, at times, of tempestuous westerly winds with excessive rains, through great Summer heats; one evening the weather being as hot and close, as that in the three remarkable days in the exceeding hot Summer of 1779, and keeping people, even out of motion and within door, in a continual sweat. In fact the heat through Europe in general this Summer was so intemperate, that on the Continent in Hungary, it melted all the snow on the Carpathian Mountains, which had lain on them more than a century, and prevented people from labouring in the fields in the day time. But, what is still more extraordinary, during all the excessive heat with us, there were, at times, such returns of a raw, foul air, and such a power of cold, that even in the middle of Summer, dreadful hailstorms with pieces of ice, fell in Herefordshire, for three days successively, that cut every thing in the country to pieces; attended with violent lightning, and uncommonly loud thunder, almost incessant. So complicated, violent, and extraordinary, was the weather and state of the air at this time, as if all the elements were at war against us.

After the autumnal *Æquinox*, cold, raw, and damp weather with an obscure sky, began to be more prevalent. However the great heat of Summer had such an effect, as I have observed, on the declining Year, that the middle of Autumn was uncommonly warm, though foul. And though there were about this time, great rains in many parts of England, yet towards the end of this season, there was a little clearer weather, as in the beginning of February and

and in May. But this was soon followed by tempestuous hail-storms out of the west, succeeded by great falls of rain, and cold, raw and foul weather, mixed with the warm and close.

In the beginning of Winter, as in Spring, there was a day of peculiarly severe weather, such as is unusual in this climate: but about the middle of it, it was, at times, warm for that part of the year. And though there were storms of hail and snow, with tempestuous winds from the west, at others, yet they were accompanied with thunder even in this cold season. Great quantities of rain also fell, both in the former and latter part of it; there being warm and close weather, at times, and also cold and raw, with a foul atmosphere and obscure sky, at others, such as was common to the rest of the year, but peculiarly prevalent in this latter part of it.

Every man capable of observation must be sensible, that this remarkable year, connected as it was with, and affected by the preceeding Autumn and Winter, bears a resemblance to the pestilential state of Hippocrates, as far as it well could in this climate. It is true the constitution of it was not of a kind able to bring in such numbers of pestilential diseases, under so many forms, with such violence and on a sudden, as that powerful one, which arose in the climate of Greece in which he lived, with its preparatory states did, but by degrees; for this was the work not only of many preceeding, but also succeeding years. It however stamped a general form and likeness, in some respects, upon all the diseases that have risen in this climate ever since.

I have already taken notice that Fevers accompanied with a peculiar heaviness of the eyes, which has been characteristic of them ever since, and also attended with great soreness all over the body on their attack, and not only an increase of languor but likewise dejection of spirits, but in no other respects as yet different from those of the three preceeding years, arose in the very beginning of this year, long before the Spring as the burning Fevers did, described by

Hippocrates in Statu Pestilenti This was evidently owing to the great inclemency of the preceeding year, and particularly to the long continuance of cold, raw, foggy, and rainy weather, in the foregoing Autumn and Winter.

In the cold weather in the latter end of Winter and in the Spring, burning Fevers, in the form of the acute rheumatism under a pestilential regulation, a Disorder that appeared in the year 1778, became epidemical. Some cases of them were very lingering and obstinate§; and there were others even of a chronic nature||. Bad Lumbago's and Disorders in the Pelvis at this time were common, attended with slow Fevers and internal decay. The legs and thighs of many, in these cases were spotted with red and black spots, shewing the great impurity of the blood, and the strong tendency it had to dissolution and corruption, and the disposition the tenacious foul humours had to fall downwards, stagnate, and putrefy, as in a greater degree, is the

§ A middle aged Gentleman, of a delicate Constitution and thin habit, was attacked with pain and swellings in both ancles; and, upon the recession of the morbid matter, without any discharge, it fell upon one knee; which, with the muscles of the leg and thigh became affected with soreness, numbness, a contraction of those in the ham, and discolouration of the skin even to blackness, so as to threaten a gangrene. And thus the Disorder remained for some time, getting always worse upon the return of cold weather. However as the Spring advanced, the matter was absorbed, receded and went off; but not without an attack of one Convolutionum malignarum, mentioned by Hippocrates in Statu Pestilenti; from which he was relieved by the use of Calomel. And through waiting properly on his Disorder from the first, and using no precipitate nor confining methods, which the violent and obstinate state of some cases now would but ill bear, he recovered also the perfect use of his knee: an event more favourable than the termination of the acute case of the young Gentlewoman of good habit and in the flower of life, who by the injudicious use of Bark lost the use of one elbow, though she escaped with life, as mentioned in our account of the Pestilential State of 1778.

In a young man of a tolerably good habit, after being affected with a slow rheumatic Fever, with much pain in the back and hips, the Disorder fell into the thighs and legs. He was cured by aperients, taken in small doses daily.

|| An obstinate rheumatic Disorder of the chronic kind, in a young Woman, ended in a descent and congestion of the foul humours in the joint of one knee, which destroyed the use of it.

case

case in the Plague itself†. Now all these Disorders, not only acute but chronic, were attended with an oppressed, and at the same time languid pulse, and the remarkable heaviness of the eyes already taken notice of. And of a strongly pestilential nature was also that Disorder, which about this time or not long after, attacked some of the Soldiers in Camp on Warley Common in the head; and which was attended with such torturing pain for great length of time, and of so obstinate a nature, that, though many withstood its violence long, in the end several of them died*. Some, from the oppression brought on by the tenacious humours upon the bowels, became subject to a Bubonocoele, without any straining, extraordinary motion, or accident‡.

With the burning Fevers, with Rheumatism, bad ardent ones without it, akin to those described by Hippocrates *in statu pestilenti*, were also epidemical: and there were many fatal cases of them§, and others very lingering and obstinate. And though they had not returns of them, and much less upon the accessions in such bad Fevers as came on upon equal days, as in those described by Hippocrates, yet upon the first attack of the Fever in some, *erat oblitio, membrorum exolutio, et vocis defectio*, mentioned by him as symptoms attending the coming on of the uncommon Fevers that arose

† See Thucydides's description of the Plague of Athens, and also Lucretius.

* This was the case also with a young Woman in London, who was said to have the Rheumatism in the head.

‡ There were many bad cases of Midwifery about this time, attended with floodings, great dejection of spirits, an uncommon languor and even gasping for breath, if the doors of the house were shut, and there was not a free flux of air. There were likewise many instances of abortion.—A Gentlewoman at her full reckoning was now for the third time delivered of a dead child.

§ A young Man of an impure and weak habit, subject to bleedings at the nose, which had lately went off, with an increase of appetite, which he used to want, was attacked on the coming on of one of these Fevers, with convulsions, which returned in a slighter manner next day; on the fourth often fatal in these cases, a rattling in the throat and a coma came on; his pulse being at times very weak and fluttering. And though he seemed better next day, from the methods used in this case, he died on the sixth.

in *Statu Pestilenti*. They had also coldness in the hands, and other signs of a great defect in the due circulation of the blood, and even a tendency to its stagnation with a pale and cadaverous aspect. And it was some time before they grew warm again, and recovered the use of understanding and speech. When they complained of heaviness and oppression in the head, were stupid and sleepy, dull and languid to an extreme, without thirst or appetite, and had an uncommon dejection of spirits†.

There was a kind of Influenza this Spring, as in the latter end of the year 1779, and many persons had coughs, and some the Peripneumony already described*. Children also had sore throats, and some persons the scarlet Fever||, the measles also were epidemical.

Besides these Disorders the Dysentery likewise began to make its appearance again§; and towards the end of this season, and the beginning of Summer, several were attacked with inflammations of the bowels; some of which were

† Two young Women in particular were thus affected, they however both recovered; the disorder in her who had it in the worst manner, going off with a small degree of subsidence in the urine.

* An old Man had this Disorder, joined with a Pleurisy. It continued some time, but at length went off by expectoration, and secretions by urine; which before it settled was of a blackish yellow colour. The pestilential State of the atmosphere also greatly affected Brutes, especially Horses, with bad Colds and Fevers, of which several died.

|| A young Woman had the scarlet Fever, with an external soreness of throat only. And a Person who had an Erysipelas last year, had also the scarlet Fever, without any sore throat, though above 50 years of age.

§ A Man in the Dysentery was relieved by a single dose of half a grain of Ipecacuanha, with lying in bed, after using medicine for several days, without any good effect, while he sat up in the cold.

Another case attendant on a puerperary Fever, that began like a common flux of the bowels, soon after delivery, and turned to this complaint about the sixth day, and was then attended with so irritable a state of the bowels, that not the smallest dose of Ipecacuanha could be borne, was relieved by Saline Mixture, taken in the act of effervescence, with two drops of Thebaic Tincture in each dose. See our Observations on the treatment of this Disorder in 1779.

complicated

complicated with a descent of them into the groin||, as I have already observed: and many others in Fevers, at this time, had obstinate constipations of them§.

Now, and particularly in the Autumn, there were not only Erysipelas's, but also many other uncommon and bad Disorders of the skin, especially in persons of bad habits,

|| A young Man about 20 years of age, in a case of Bubonocele that hung on some time, and in which the Intestine was in a state of strangulation, was so greatly afflicted as to suffer the iliac passion, and vomit up his Excrements; and though he survived it, yet after this, the case was still of so lingering and untoward a nature, and attended with so great a defect of due circulation and action in the parts affected, that though cold as well as warm applications had been used, the Intestines would not return till after the use of the cold Bath. And even after the Rupture was reduced, as the case depended originally on oppression and a febrile indisposition, he could not recover health, nor go out into the air without growing worse, till a change in his constitution for the better gradually came on. I mention these circumstances, and am more particular in my description of them, because cases of this kind are, in general, looked upon as purely accidental.

Another person about the same time was attacked with an inflammation on a Rupture he before had, which made it incarcerated. He found relief neither from warm nor cold applications, nor indeed from any thing, till an Erysipelas broke out on the Abdomen, and after receding inwards and coming out again, and remaining in this fluctuating state for some time, came at length to suppuration. See Hippocrates on the suppuration of Erysipelas's, and the benefits arising from it, as well as the evils from the want of it in Statu Pestilenti.

Thus these two persons recovered in the Spring. But in the end of Autumn a Man of a gross habit, in the decline of life, soon died in a case of this sort: a mortification, from the great tendency of the humours then to putrefaction in such an oppressed constitution, coming on in 24 hours, though it was not attended with any uncommon degree of confinement. The Disorder in fact came on at first from very little extraordinary exertion of the body. He had had a tendency to it, at times a little before, but was then relieved by the discharge of three or four stools: and had been subject to a Rupture about 15 years before, which was once in a strangulated state, but after it returned, had never been subject to the Disorder from that time to this.

§ A young Woman could not have a Stool procured by any means, from the 12th of May, to the 20th; that interval being the time when these peculiar difficulties respecting the confined state of the Bowels were most prevalent.

and

and bad eruptions on the face and other parts of the body†. And not only these complaints were common, but there were two instances of a kind of pestilential boil that I knew of*.

This Spring that very peculiar, violent, irregular, dangerous, and obstinate disease, the burning, or as the people in Kent properly enough called it, the Plague, Ague made its appearance, became very epidemical in the eastern part of the Kingdom, and raged in Leicestershire, the lower part of Northamptonshire, Bedfordshire, and in the Fens throughout the year§. The Disorder had no regular type, the fit sometimes not returning till after three or four days, at others in six hours: there being no intermission in either case, but the Fever persisting, in their beginnings, in the intervals, whether long or short. Persons affected vomited up large quantities of yellow and green bile; the liver and bowels in general, being so greatly oppressed, that they complained of great tightness across the belly, and a seeming fulness of it. The Disease in general was very difficult of cure; and under the circumstances abovementioned evidently required a most exact and nice treatment. When therefore Practitioners imprudently gave the Bark in the beginning of the Disorder, before due evacuation had been made by the bowels, according to information from a per-

† Several young Women in a Family, that had been Inoculated some time before, were subject to these complaints: and one of them had such an eruption on the face, as quite disfigured her. A young Gentleman also had the same disorder in so bad a manner, that he was sent to Cheltenham to drink the purging mineral water there, which cured him.

* One of these Tumors arose in the back of a middle-aged Gentleman, rather in the decline of life, and after being attended with intense inflammation and excessive pain, for some time, at length came to suppuration in the middle of summer. The other was in the side of the face, and came on in the beginning of the year; being at first as hard as a stone, and attended with such pain, that the affected person could get little or no sleep on nights till May, when it was opened; but he remained in a very weak and languishing state for some time after.

§ This Disorder is one in the Catalogue of those dreadful Disorders wherewith the Almighty threatened to afflict the Jews for Disobedienc. Leviticus xxvi. 16.

son of credit, they lost six or eight Patients in a week, notwithstanding that medicine ran off by the bowels, as it generally did in all cases. And it happened not a little unfortunately, that this circumstance led many as injudiciously to give extract of Logwood, and other astringents, in order to restrain the discharge, which increased the mischief. Those who were treated in this manner, who did not die, recovered not health, but were subject to continual relapses. Some however were managed in a more judicious manner, namely by giving, after the use of an Emetic, gentle aperients, to which was added a little castor oil mixed with yolk of egg, to open the bowels; after the due use of which the Bark succeeded very well, and the Patients recovered. This strongly pestilential Disease however had such an effect upon them, that the complexion of their faces, for a time, continued as white as paper, and they went abroad more like walking corpses than living subjects. And during the Disorder they had the peculiar heaviness of the eyes already noticed|| For though an intermittent Fever, it had nearly the same symptoms attendant on it, and was like in nature, being a burning one, to the continual ones now reigning, in all other respects†. This Spring was very fatal to old persons, many of whom died of various Disorders.

In the middle of Summer, and particularly in the very hot weather in the beginning of August, violent Diarrhæas with tenesmus came on, mostly in burning Fevers*; and the latter raged now, at the end of this season, and in Au-

|| *Vide Hippocratem de Febris intermittenstbus incertis, vagis, implacidis, et inconstantibus, in Statu Pestilenti.*

† This dreadful Disease, in the course of the year, raged with such violence that five persons were buried in an evening in some large Towns in Northamptonshire. And about Boston in Lincolnshire it was so general, and grievous, that out of forty Labourers hired for work in Harvest, half of them, it was said, would be laid up in three days. And all strangers were affected with it who were not used to the air of the country.

* A young Woman in 6 or 7 Hours was so reduced in one of these cases, attended with sickness and violent reachings to vomit, that she was ready to faint away every minute, and obliged to be supported with Port Wine. She recovered, but many others died of these Fevers.

tumn,

tumn, in the towns of Birmingham and Nottingham, and vast numbers, especially among the poor, died§.

Most of the Disorders mentioned, continued, and grew worse in Autumn. There were rheumatisms attended with blackness on the skin; bad inflammations of the tonsils, uvula, and throat; especially in large towns and among children. Some of these sore throats ended fatally, being attended with ulcerations, and mortifications, very offensive before death. Others degenerated into a kind of chronical Disorder, leaving a tumor on the tonsils. There were also many fatal cases of Fevers, and many abortions caused by, and attended with them. For burning Fevers, accompanied with vomitings and purgings, and great soreness all over the body, were now prevalent in London, and indeed through the whole kingdom; vast numbers being afflicted with them. But it was much worse in general with those, who, instead of a Diarrhæa, had an obstinate constipation of the bowels†.

A bad kind of Small Pox and the Chincough attended this very extraordinary pestilential State; and vast numbers died of the former in large towns during the Summer, but more in the Autumn and beginning of Winter; and many of the latter‡.

The

§ Sixty Persons were said to be buried in a week. Thus much however is certain that the fatality in the latter Town about this time was so great that a report was spread in the country, that the Plague was broke out in it.

† One peculiar Case was complicated with a paralytic stroke on the attack, and according to the nature of a true pestilential burning Fever, was attended with great internal heat, and also thirst, though the man was cold to the touch externally. He had also great costiveness of the bowels, and difficulty of their being moved; and was heavy and stupid at first, then delirious for two days, and then dull and comatose. See Hippocrates concerning these Disorders in *Statu Pestilenti*. There was also a fatal puerperary Fever that came on from repelling the milk.

‡ There was said to be a great mortality this year in the French Fleet again, and also in one belonging to the Spaniards. And the Air was so Pestilential in the East, that the Plague continued at Smyrna, Adrianople, and other places, all the Winter, and broke out in Constantinople as early as the

The Apoplexy was a Disorder common to this year||, and there were some cases of Hydrocephalus. But instances of lunacy, in particular, became now very frequent; especially in Persons hereditarily disposed to it. Gouty people also were much subject to their Disorder; and to frequent returns of it. Cancerous complaints likewise became very common, and Dropsies and Consumptions, as I have already mentioned. Persons in Declines and other chronic Diseases, beginning now to have a very pallid look; the former Disorder, though often lingering, being sometimes, in other cases, attended with a sudden decay of strength in the very rapid progress of it.

Thus this pestilential constitution, preceded many years by preparatory large quantities of rain and vapours, inducing an Atmosphere productive of putrid Disorders, and forwarded, brought on, and continued, by alternate returns of intemperate heat and cold, was at length raised to this high pitch of violence by predominant moisture, and the union of great heat and cold with foul exhalations; frequent and sudden transitions from the one to the other, and the confused mixture and united power of them all. Their bad influence and force on the body being still farther increased by tempestuous winds, and the ill effects of a subsequent contrary extreme, that of a stagnant and close Air, and obscure sky; and by seasons thrown out of due order, and a perversion of natural order by irregular states and extremes of weather in the several parts of the year.

the middle of February. In the course of the year, half the inhabitants being carried off by it at Alexandria, and Cairo: in which latter city, a thousand were said, by accounts in the Papers, to die daily, and 40,000 in the whole at Salonica.

|| A young Man died of it in the Spring.

CHAPTER

CHAPTER V.

*Of the Continuance and Increase of the Pestilential
Constitution, in 1782.*

THE Pestilential Constitution and its Diseases being now set in, while the former remains nearly in the same state, and the latter continue in a great measure, in the same form, it will not be necessary to give such minute descriptions of either. However, as the procession and increase of them have been gradual, and they have arrived at their present state and power by degrees, some further changes happened in them, and force been added to them, it will still be necessary to take some notice of both.

This year was a kind of mixture of the two preceeding ones; there being a severity of cold in it equal to that in 1780, but it being, on the whole, most remarkable for the continuance of the cold rawness, tempestuous winds and rains, and during the Summer at times, the close heat also of the preceeding year. The wet weather, in fact, was so continual in the latter end of last year and the beginning of this, that there was hardly 24 hours dry weather together from the latter end of October to the end of March; this year again, as the last, being preceeded by an obscure, cloudy excessively wet and foul Autumn and Winter. The atmosphere, in the latter end of the last mentioned season and beginning of Spring, being loaded with impure vapours, the Air subject to the sudden changes, and its temperature abounding with the variable and mixed weather alike common now to all parts of the year, and confounding and destroying

destroying that peculiar to each month*. There were not only tempestuous winds with large quantities of cold rain, and a much rawer Air than usual out of the western points, and the south†, accompanied with greater impurity, a more gloomy obscurity, and increased dampness in it, but also hailstorms, and high winds with vast falls of snow‡ out of the north, the eastern, and other quarters; and so augmented a power of cold, from the chillness coming on in the Air after such vast quantities of rain, and the long hanging on of such inclement and severe weather carrying on into and continuing Winter in Spring§, as brought on an universal pestilential Influenza, or peculiar sickness with defluxions, and Fevers attended with coughs and disorders of the lungs, through all Europe; called in Denmark, Sweden and Russia, where it was most grievous, the Northern Malady.

The tempestuous westerly and southern winds continued, and immense rains also fell, or rather poured down, during the heats of Summer, as in last year. And though this season was not of so long continuance in this, yet a great part of it was very hot and sultry, though this close weather

* This has been the case with the weather of March, in particular, for three preceeding years; nor was it a natural March month in this. For though the Air was so cold, it was, for the most part, foul and raw, and wanted the purity natural to it in the Spring, and the wholesome state it was in, in that season, many years ago.

† The South wind was so cold and raw this year, as to destroy whole walls of Fruit Trees, planted on that aspect. Which, with the terrible effects of a Pestilential State also on human bodies, puts me in mind of Virgil's fine description of one in the following words

*Subitò cum tabida membris
Corrupto cæli tractu, miserandaque venit
Arboribus satisque lues, et letifer annus.*

‡ There were very severe frosts at Vienna, by accounts from thence in the beginning of May, and such falls of snow about that time in Italy, as made the roads impassable.

§ And yet notwithstanding all this severe weather, there was thunder in the very beginning of April, and very close weather in May.

was

was interrupted, at times, by some very cold||, raw, and gloomy.

In the very beginning of Autumn the cold weather soon gained greater power, and a very great foulness in the Atmosphere prevailed, with an obscure and cloudy sky; the wind turning about into, and excessive rains often falling in much larger quantities than even in last year, out of every quarter. And though the Air and Sky were somewhat clearer, and the weather warmer about the middle of it, yet this was soon followed by the usual raw, foul and gloomy kind of it, with falls of snow and rain: after which drier and severely cold weather† prevailed to the end of this season. The usual foulness of the Atmosphere and gloominess however continued, as well then as at other times, and also in the beginning of Winter, with a more stagnant Air. High winds coming on again before the middle of it, with rain, hailstorms, great falls of snow, and a frosty Air, followed by warmer weather and thunderstorms even at this season of the year; and these again by foul, obscure, tempestuous and rainy weather, and then colder with snow.

Thus we see that this year like the last consisted of intemperate cold, moisture, and heat, with a predominance of the two former rather than of the latter, as in that. And that the same pestilential power at least continued in the Air or rather that a greater reigned, we had abundant proof in the appearance of burning Fevers attended with the peculiar heaviness in the eyes already described, and also both with eruptions on the skin, and without, in the very beginning of the year. Persons without them being affected with

|| Such terrible hailstorms fell this Summer not only in France but Spain, as destroyed the fruits of the Earth, and desolated that part of the Country where this happened.

† About this time there were such uncommon frosts, near Pons in France, towards the end of, and even during showers, as froze Ice an inch thick round the branches of trees, and liscles of such an enormous size all over them, as broke them down. There were such kinds of frosts, but not to such a degree, with and immediately after rain in England, in the latter end of 1779, or beginning of 1780.

great

great coldness, a very languid circulation, and even tendency to stagnation on their attack*. They were often attended with Diarrhæas, and sometimes with coughs and Disorders of the breast; and those with rheumatisms also became epidemical. They being all accompanied with extreme languor, uncommon and vast irritability, great internal heat, and likewise great thirst, in the febrile returns or paroxysms that came on, regularly every evening; as was the case with continual Fevers in general, howsoever attended, in various cases, with different complaints or symptoms, the radical Disease, the burning remittent Fever being of the same specific nature in all. The Dysentery also was common, at this time, in many parts of England: and there were bad cases of the Small Pox attended with high putrescences.

In the cold weather in the Spring burning Fevers with affection of the lungs became epidemical, and several children died of them†. They were now also often attended with inflammations of the bowels in their beginnings, and also in the Summer, when these Disorders were very obstinate and dangerous. Agues likewise of a very irregular and bad kind‡, and sometimes attended, as well as continual

* A young Woman on the attack of one of these Fevers, could hardly get warm again; and when she did, a swelling in one arm appeared, so tenacious and unattenuable were the foul humours.

§ A fatal case of this kind happened in a young Man, even in the Disorder by inoculation.

† Amongst the rest one lately inoculated; and another who had had the small Pox in the same way, was attacked with a fever and dry cough, with a remarkable heaviness at first and disposition to sleep, symptoms which the child that died also had, but afterwards it grew delirious.

In a puerperary case, wherein the breasts were not drawn, and the lochia were rather deficient, the Woman was attacked with a fever, cough, and also a tumor in one breast. However through the free discharge of it when it broke, expectoration by the cough and the additional help of a Diarrhæa that came on, though greatly reduced, she recovered.

‡ The Bark given to a Gentlewoman, after the second fit of a tertian ague, ran off. Upon the imprudent use however of other astringents, in order to prevent this, an inflammation of the bowels came on, and she died about
F the

nual Fevers||, with so great faintness as to bring on a perfect Lypothymia on their attack, were very numerous.

But among all the Disorders incident to, or that rose, at this time, under this very general, extensive, and violent Intemperature, the Influenza§, as it was called, an highly pestilential Disease of a very peculiar kind, that spread itself, on a sudden and in a most rapid manner, through all Europe, was the most extraordinary. About the latter end of Spring it was so general in England that 3000 persons were said to be taken ill of it, in and about London, in one day. And it raged so at Vienna and other places, that, by accounts in the public Papers, 80,000 were affected with

the seventh day, from the attack of the intermittent. The Bark also given in another intermittent tertian, a week after the Disorder came on, would not answer, though vomits had been repeated, and there had been considerable sweats after the paroxysms: which plainly arose from the too early exhibition of that medicine, the Disorder being not yet come to any due crisis.

|| Fevers were said to be so bad this year in Worcester and London, that five Relations, after visiting one another when sick, died of them in the latter city. And by accounts of the brain being greatly affected in many cases, I am inclined to think *Phrenitis* itself came on in them this very year. If under a notion of their being putrid fevers, wine is given, at least in quantity, and in the beginning of the Disorder, it will often, by suddenly rarefying the blood and foul humours, and heating the body, greatly aggravate the symptoms, and increase its effects upon the head. For though it follows in general, the type of the former putrid fever, in regard of remission in the day time, it is not a putrid fever properly so called, but a burning one peculiar to this climate. In which the tenacious foul matter, as in all Pestilences, is so far from being capable of sudden separation from the body, that it is not often, at first, of mere simple protrusion to the surface of it. And hence the obstinate and frequently lingering nature of pestilential Disorders in some, and sometimes violent and suddenly fatal one in other cases, when the morbid matter abounds; and also the frequent dropical tendency of the scarlet fever and sore throat, and other pestilential fevers, when their first efforts are over.—See my observations on them on their rise in 1778.

§ About the time of the rise of the pestilential Influenza in England, after a great storm in London, attended with violent lightening, and so loud a clap of thunder as greatly terrified the Inhabitants, there appeared a luminous meteor in the West, in the form of a spear, which continued visible for near five minutes; and disappearing, the sky became illuminated with vast numbers of rays projecting from a point, and spreading like a fan; a strong emblem of the power and universality of that violent, pestilential Disorder.

On this account the Court of the Exchequer, and all places of public resort were shut up.

it,

it, in that city and its environs, at the same time; and nine out of ten in the city of Lichfield and other towns, the increase of cold and moisture in the atmosphere, this year, and dampness on the earth, were so great. People attacked with it were suddenly affected with great defluxions on the nose, throat, and lungs, bringing on violent sneezings, soreness of the throat, coughs, difficulty of breathing, oppression and inflammations of the lungs, with their concomitant symptoms and consequences; the Disorder, but especially in cases that were in any degree violent, being attended, during its course, with a pestilential Fever, of which many were relieved by perspiration. It is remarkable however that they soonest got well who kept upon their legs: those who took to, or were confined to their beds, soon growing very weak||, and being sometimes subject to a spitting of blood. Some had swelled faces and violent pains in the teeth; some foul eruptions on the lips; and others terrible ulcerations in the mouth||. Some had loss of appetite and sickness at the stomach; and others giddiness, violent head-achs accompanied with a slow Fever, and even loss of memory||; the Disorder being attended with excessive faintness, though a person was ill of it but a single day||. By its running through whole families it appeared also to be communicable by infection. Its general causes however certainly were an excessive coldness, and moisture in the atmosphere, joined with an ill state brought on therein by the power of heat, through the return, at times, of an hot Intemperature.

This Disorder was not in general attended with so great present fatality, at least not in many places, as from its highly pestilential nature might have been expected. Though it sometimes hung on, grew worse, brought on other complaints, and appeared in various shapes on the return of cold weather in the decline of the year; and thus laid the foundation of, and brought on many consumptions, and other chronic Diseases that in the end were

|| See Thucydides's Description of the plague of Athens, and Hippocrates de morb. vulg. in Statu Pestilenti.

mortalis. And very fatal likewise, in some places and in some peculiar instances, were some more recent cases, both of this Disease, and the burning Fever epidemic at the same time*. In a Disorder of only two or three days continuance, persons affected with it grew remarkably pale and wan, with a fallen countenance, full glazed look of the eyes; and soon became greatly emaciated; their appearance being much the same as that of those who had the pestilential ague in the preceding year, and they walking about, as after that, more like ghosts than living subjects.

As to the medical treatment of this uncommon Disease I can say but little; it being so mild, and going off, in general, so easily with us, that there was very little opportunity for practice in it. Some, under a notion of inflammation in the lungs, advised bleeding in it: but it seems to have been a method that, except in a few extraordinary cases, if we may judge from the highly pestilential nature of the complaint, and the extraordinary weakness attendant on it, could be in general but of little use, at least not proper to be much insisted on. It being in general best to keep on the legs in most cases, as I have already observed, and let the Disorder, in a good measure, take its course, never in-

§ A Man about 50 who had had the Influenza in the spring, and after it the ague, was affected with a cough and slow fever all the summer, and almost to the end of Autumn, when he had a paralytic stroke on one side, after which the cough again returned. And notwithstanding the morbid matter soon after also fell upon his bowels and kidneys, producing frequent motions and efforts for its discharge, no due secretion of it came on by them. Calomel indeed opened his Bowels, and relieved him from the obstructions there; but after a repetition of it, it brought on great irritation and tenesmus. After this he had an effort by the cough again: and then pimples broke out on the body, and black spots appeared on his legs, as if they were going to gangrene. Falsely attributed to his having taken large quantities of volatile Salt for his cough, but really owing to the bad state of his blood. The case proved fatal.

* Eight Persons were reported to be dead in one Family, and four or five in another. Many also died at Birmingham and Northampton of these and other Disorders. And there was so great mortality in Kent, that a whole Family both root and branch was cut off: a Mr. A. Hunter, his wife, son, and three others. There were also accounts of a great mortality at Petersburg.

terfering

terfering but when it was absolutely necessary.—The chin-cough accompanied this pestilential Disease.

In the middle of Summer burning Fevers were very fatal§. They were attended with violent pain in the head, great internal heat, and dejection of spirits. In the latter end of it, and in Autumn, those without, and some also attended with inflammation of the bowels, and Erysipelas's, Disorders common to the whole year, were accompanied with still greater weakness and lowness. And beside cases suddenly fatal, there were many violent, as well as slow Fevers, that were very obstinate and of long continuance, attended with scabs and eruptions on the skin†: especially in the progress and decline of the Disorder, when nature began to be relieved, and the morbid matter so far attenuated, as to be thus capable of being thrown out upon the surface of the body. Painful boils also arose in some lingering cases||, and abscesses were formed*. The pestilential

§ By accounts in the Papers there was, about this time, in the Bishopric of Thoulouse in France, so violent a Fever, attended with profuse sweatings, and a gathering in the head, as killed in 24 hours.

† In a violent burning Fever in a Man of an highly scorbutic habit, about 50 years old, by reason of the great increase of symptoms, and in particular on account of a tension in the abdomen, and fulness in the stomach and bowels, a vomit was given on the 9th day; which, though its operation was difficultly borne, afforded relief to the latter. After this however, notwithstanding the use of aperients, so useful in these fevers, in the intervals of the paroxysms, and of antimonials and saline medicines at night in them, with the repetition of the vomit after two days, the Patient complained of soreness in his throat; a symptom often attendant on these burning Fevers, and that, according to the present very inflammatory nature of it, came in with the scarlet fever in 1778. He had great heat flying about him from place to place, and seemed inclined to be delirious; but one of the antimonial Powders, happening to vomit him again, he was much relieved. The case however proved very obstinate, and went off without any good crisis: all the relief he had afterwards arising from a kind of leprous eruption that came out on the skin. He was affected with the rheumatism in the beginning of the next year.

|| One of these slow fevers was accompanied with very painful boils in the head and face, and at times a very violent head ach.

* In a man who had a bad inflammation of the Bowels, an abscess at length was formed in the groin.

A fever also of long continuance was relieved at last by an Impostumation.

humours also fell, without febrile efforts, upon the eyelids and eyes of some, and others had eruptions on the body.

Before the coming on of Winter several aged, infirm, and intemperate persons, such as did not use proper exercise, had strokes of the Palsy†. And many labouring under hereditary impurity of the blood, and infirmity of constitution, were now wearing away by lingering, or taken off by violent Disorders; and many old people in particular died.

In the cold, raw, foul weather in the latter end of Autumn and beginning of Winter, the Influenza, or coughs and Disorders of the lungs with Fever, returned again. And more violent burning Fevers running through whole Families, and apparently infectious, attended with coughs and Diarrhæas, or a constipation in the bowels, as in the Summer but of a worse kind, were prevalent; many dying of them in close large towns.

In

† A Man who had the Gout frequently, without its going well off, and who had been several times at Bath without much good effect, having not been directed to the use of the Water at Cheltenham as a preparative for the former in his highly scorbutic case, was now attacked with that Disorder in his head; so much had the gouty matter accumulated in his Body, and so greatly was he oppressed with it.

§ A Gentlewoman who had an Erysipelas in the Summer, and after that a Cough with expectoration, was now attacked with an inflammation of the Bowels; the remains of the tenacious heated pestilential matter having fallen on them. A dose of Calomel however opened the obstructions in them, and relieved her for this time. She had however in the course of her Illness, four different returns of it; the last of which was of so fixed a nature that it brought on the iliac passion. However a large dose of the above-mentioned medicine, after taking 20 drops of Thebaic Tincture by way of preparative some hours before, relieved her again under this exigency. The Fever however original

In the middle of Winter acute Dysenteries were epidemical again through the Kingdom, and among chronic Disorders consumptions; some thousands dying of them in London only, by the bills of mortality. So numerous, dreadful, violent, obstinate, and fatal were the Diseases and grievous maladies, both acute and chronical, brought on by and accompanying this surprizing intemperature; which has recurred in more or less degree, every Spring and Autumn, and been productive of Fevers with Coughs and complaints in the Chest, especially among Children, and brought on or confirmed many consumptions in young persons ever since.

CHAPTER VI.

Of the Continuance and Increase of the Pestilential Constitution, in 1783.

THIS year, truly as well as emphatically called, by an ingenious and accurate Writer†, an year full of horrible Phœnomena, was preceeded by a Winter in which, with the now usual very variable and often tempestuous winds,

ginal in the case, after this grew violent, and a delirium came on, a common attendant in all bad cases, the Disorder being at a stand for some days. However upon a Ptyalism's coming on she grew rather better; but even by this the tenacious matter was not duly discharged, for after it was over, the inflammation of the Bowels again returned. And thus she gradually sunk under these repeated relapses.—What can shew the inseparable nature of some tenacious matter in a clearer light than this most remarkable case.

† Mr. White of Selbourne.

raw, foul, gloomy, rainy, close, and complicated weather, there was about the middle and end of it some very cold with falls of snow. And though this did not lye long on the ground, but after a few days dissolved, yet there was great coldness at these times, and an Air more like that of January formerly than any of late years. And, in the following season, an Air also more like the usual Air of March, though foul withal and hazy, and, at times interrupted by the warm and close, and even hot and sultry, pervaded the whole Spring. The drought that attended it continuing, for the most part almost to the middle of Summer; there being some indeed, but not much rain, before.—To this coldness in the Spring succeeded heat in Summer so excessive, as to equal, and in sultry closeness even surpass, that in 1779; raise Farenheit's Thermometer, here in the center of the Kingdom, hung facing the north, up to 83, and in the city of London, to 90 degrees; and so affect its Inhabitants, that they were ready to drop as they walked in the streets, and hardly able to lye in their beds in the night.—This extraordinary heat was accompanied with such a foul state of the atmosphere, through vast quantities of gross exhalations raised into the Air, from the excessive moisture of the two preceeding years, and their being there heated and the finer parts evaporated, that the hazy vapours so obscured the face of the sun, first towards evening, and then in the afternoon, and even at mid-day, for eight days together before the middle of Summer, and

† The heat was so excessive as to produce, in the end of Summer, in the evening of a very hot day, a remarkable collection of embodied light united with sulphureous vapour, commonly called a meteor, or rather several that followed one another in a train, that moved in a direction nearly from North-West to South-East, and were attended with a great explosion when they disappeared.—Indeed signs of great heat in the atmosphere had not been wanting, even early in the year; a meteor in the form of a luminous arch, appearing extended across the hemisphere, from North-East to South-West: the Aurora borealis rising up from the horizon on all sides till the rays of light met vertically in a centre, as in 1778, at the same time, and a fiery colour mixed with a dismal darkness appearing at various others.

also

also at times afterwards, that it looked of a sort of bloody, or rather brown, dim, fiery colour; the moon having nearly the same appearance at night. And the same sort of fogs prevailed at the same time, not only through England but over all Europe.

This foulness in the atmosphere was followed, about the middle of Summer, by tempestuous hurricanes, and dreadful storms of rain and hail, attended with lightning and thunder so uncommon and violent, as had not been known in the memory of man. More rain likewise falling afterwards, and also towards the end of this season, and beginning of Autumn, accompanied by tempestuous westerly winds, and succeeded by very foul weather till about the middle of it; when there was some that was cooler and finer. Followed however by more rain, thick fogs, cold, raw, tempestuous weather, with falls of snow; and then a mixture of the warm and cold at times, attended with the usual foul, moist, and foggy Atmosphere, and obscure sky.—As for the Winter it was as foggy and gloomy as the Summer had been foul, with a severity of weather proportionable to the heat in that†. But though it was very cold all through the middle of it, yet there was no continued frost without relaxing and going off at times, nor any of the clear Air natural to this season, except a day or two now and then, and once seven days together about the middle of it; but a foul atmosphere and hoary frosts, and tempestuous winds with falls of snow and some rain.—Thus we see that cold and dryness

† On December the 30th, the Severn was froze over in one night, and the Tyne at Newcastle. The Thermometer at the latter, according to Mr. White, being $2\frac{1}{2}$ above null, in 1780, 3 below it. At Edinburgh one Thermometer was said to be 4 degrees above Zero on the 28th, on the 29th 7 degrees higher, and on the 30th, 4 below Zero; varying thus 15 degrees in a few hours. The 24th of February also it was so cold, with an hoar frost, that the Thermometer, in the South of England, was 8 degrees below the freezing point, which is within one degree as low as it was with them this frost; sinking in the Morning to 16 in the open air.

predo;

predominated in the Spring; excessive hot weather with a peculiar foul and hazy Air in the Summer; and in the Winter severe frosts and fogs; Autumn having nothing peculiar, except a little fine weather about the middle of it, though great impurity, in general, reigned through the whole.

This dreadful year, in the very beginning of it, raised burning Fevers, in some young, strong persons, to such an height, as to bring in *την Φρενιδα*, the phrenzy, in this interior part of England, and make it sometimes an attendant on them, according to that of Hippocrates de

§ In the cold, raw weather, about the middle of Winter, when the first snow fell, a strong labouring man about 30 years old, and in the flower of life, was seized with so great a coldness, on the coming on of a burning Fever, and so great a tendency to stagnation, that a Paralysis affected one arm and leg; nor did he get warm again during 24 hours. With these extraordinary symptoms, he had the usual ones of sickness at the stomach, and pains in the head and back; for which he took a vomit, and a blister was applied between the shoulders. When his Fever came on the next Morning, his pulse grew so full that some blood was drawn. But notwithstanding this, the Disorder soon rose so high, that he was attacked with a phrenzy. The case verifying thus the observations of Hippocrates concerning the powerful effects of cold in bringing on and increasing Winter Fevers, and producing phrenies. Sect. v. in Libr. de Affection. However by repeating vomits and cooling aperients, in the early stages of the Disease, he with tolerable ease recovered. Though it so terribly shook the nervous system, that it never after recovered its former strength, and stability.—This was the first instance I had seen of a phrensy, under the present pestilential Constitution. But though there was the strongest call for a blister in this case, wherein the blood and humours had so great a tendency to stagnation, it may be proper to take notice, that neither they, nor stimulating or heating methods of any kind, operate kindly in general, in the beginning of burning Fevers, and particularly blisters on the head. For hereby such a quantity of tenacious humours are on a sudden rarefied, in bad cases, as the Constitution cannot dispose of, they being most of them as yet unfit for secretion.

Morb.

Morb. Vulg. in Statu Pestilenti, Cœperunt itaque Febres ardentes et Phrenitides ante ver; while others of lesser strength or a more advanced age, were affected with Coma somnolentum‡. There were also instances of Tetanus and the locked Jaw in these Fevers||. And in the latter end of this season, and in Spring, burning fevers became more general, and were accompanied with uncommon symptoms, horrid terrors, and a considerable degree of fatality†. They were attended with large discharges of viscid bile from the stomach. And from the increasing quantity and tenacious state of this phlegm, and other foul humours, determined to and oppressing the stomach and liver, and the other viscera of the abdomen, Diarrhæas, and at other times, various degrees of obstruction, tension, and inflam-

‡ Another Man aged 50, upon getting up very early in the morning, was attacked with a greater degree of coldness than what came on in the preceeding case, attended with blackness round the eyes, and tendency even to total stagnation. He had violent pain in the head, sickness of the stomach, and instead of Phrenitis, Coma somnolentum. — These cases are in some measure of the kind mentioned by Hippocrates in Statu Pestilenti. And though the symptoms, through age and infirmity, and a worse state of the blood, were different in the respects above mentioned, the fever and its causes, in all others, were undoubtedly the same in both.

|| A Woman between 40 and 50 Years of Age, who had had a Fever, at times, for half a year, and lately a cough, when the latter abated, was attacked with the Fever again in a more violent manner, attended with Delirium; being then in a very reduced state, her countenance pale, and face bloated. Under these difficult circumstances, she was seized with a locked Jaw, and universal Tetanus: complaints evidently arising from the long continuance of the Disorder, and the difficulty of parting with the morbid matter, these however happily soon went off.

† Several persons of one Family died of these Fevers, in a Village near the place in which I live, and three in one in Shropshire, the violence, obstinacy, and fatality of them were so great; as, in regard of the two latter, was likewise the case with chronic Disorders.

mation

mation in them, but especially in the two former, often now came on in fevers§. Inflammations also producing a perfect

§ A young Woman, on the abatement of the inflammatory symptoms, in one of these cases, after a second bleeding, which, though it reduced her, brought on a small flux of the menses, that was followed by a violent putrid purging with a very offensive smell, which however she bore pretty well, upon the going off of the latter, was attacked with a pain in the side and oppression of the heart, on the 7th or 8th day of the Disorder. This however went off, and she grew better, till on exposing herself to cold, she was seized with a second chill fit; after which the Fever and Diarrhæa returned, for she had as yet no signs of crisis, either by perspiration or subsidence in her urine. She however grew better again; but, upon indulging her appetite too soon in eating heartily of chicken was taken with oppression and pain in the stomach, attended with a stoppage of all discharge from the Bowels. And a total stagnation of the blood in her reduced state soon coming on, she died the night following. Hippocrates in *lib. 1. de Morb. Vulg.* gives us a remarkable case, setting forth the pernicious effects of the improper use of food in Fevers; which, for the honour of Physic I wish had been more attended to. For if this and his wise observations concerning the impossibility of nourishing foul bodies had been, Practitioners had not persisted so long in their vain attempts to restore persons in consumptions, and after Fevers, and support people in the latter, by viscid diet. I have cured many of the former; but never one without laying a restraint on Patients, both in respect of the quality and quantity of their food, nor without the use of regular exercise, and a strict regard to the state of the digestive powers. Nay oppressing the constitution with food has been so far from being useful, that a quite contrary method, the unloading it by repeated vomits, has been found to be so. Even Ascites of 3 years standing, to cure which, a large quantity of medicines had been taken, and Porter drank with an intention to mend the blood, was at length radically cured, merely by ordering the disuse of the latter, and of all viscid liquors whatever, and instituting in their place the use only of light spirituous ones, without a single dose of medicine of any kind, after the Patient had been tapped 3 times, though 40 years of age. Medical Gentlemen often do not seem to consider, that the radical cause of all Disease, both hereditary and
acquired

fect obstruction of the intestines, and the discharges from them, were epidemical at this time. But, from the large discharge of bilious humours in the former, to call these burning fevers bilious ones, was certainly highly absurd†: as well might the plague itself, in which there are also often large discharges of foul bilious matter, be called a bilious

acquired ever lay, and still lyes, in intemperance; and that a farrago of medicines, and a load of viscid diet, in oppressed and weakened bodies, are not likely to be instrumental in their cure.

† A Gentleman of a middle age, in the beginning of a burning Fever, was affected in the bowels, and discharged a great load of foul humours by a putrid purging. He took 3 vomits at proper intervals, which greatly contributed to his recovery. Notwithstanding however he grew delirious, and a deafness came on. Even under these circumstances, such quantities of Bark were given, under a notion of its being a putrid Fever, that his skin from the hips downwards turned perfectly yellow, and grew rough with a dry scurf that came out upon it, as if it had been tanned; a sense of great heat being felt in those parts, from the acrid state of the humours, and obstruction of the skin. He lay ill attended with delirium for some time, but by mere dint of strength at length rubbed through this dreadful Disorder. When he recovered his senses, he had no recollection of any thing for a month past, and was very weak and greatly emaciated. A sore that, perhaps by long lying in the same posture, came on his hip, and discharged freely, seemed to contribute to his recovery. The Disease however left a degree of deafness behind it, and also the foul humours not discharged fell into one leg, which continued swelled for some time; pointing out plainly enough the defect of a due crisis. And no wonder, when such quantities of Bark were given during the height of the Fever.

A Woman who had a sore in the leg, which dried up, was taken with a Fever of the spotted kind, attended with the same intolerable stench, that accompanied those in the Workhouse, in a large Town near us, some years since. She held out a fortnight, but the case proved fatal.

There was a very extraordinary case in Shropshire. A Man subject to a sore leg, on lying on the ground, probably after work-

ous Fever, and upon as good grounds.—Sometimes a violent hæmorrhage from the nose came on, in these Fevers, towards the end of the Disorder*.

In the foul, hot weather, in the beginning of Summer, ulcerated mouths, and eruptions on the lips, both in and out of Fevers, and also pains in the face, became epidemical. Burning Fevers accompanied with pleurisy and inflammation of the lungs, were also very common†; the matter of the Disease in many instances, being determined towards the end of Fevers, to the hands and feet, in those who recovered. These swellings, which were considerable, and often attended with great coldness when in the feet, that seemed to arise from an inactive stagnating vapour, continued sometimes for a month or more, attended with a very lingering or slow Fever, and a state of great weakness.

working, fell asleep, and while his pores were open, was licked by a dog on his forehead, who had just killed an Adder. After which both that and his eye swelling, a poultice was applied. However he was soon seized with a delirium, and after that a Phrenzy; and was so ill, that after two days, he seemed to be dying. But he came to himself, and after a day or two more was able to go about business. A relapse, however came on. And notwithstanding the Disorder might appear to be brought on by the absorption of the poison of the Adder, it evidently proved fatal for want of crisis,—This febrile case may serve to shew in a conspicuous light, how accidents and occasional causes, that intervene in or precede Disorders, are often mistaken for the true one: which undoubtedly in this fatal case, resided in the foul blood of a scorbutic habit, heated at first, and the vessels put into action, by the infused venom, the Fever and its ill effects being still farther increased, from taking cold by sleeping on the ground.

* An hæmorrhage of this kind happened particularly in a young Woman.

† Horses about this time had also bad colds and coughs that killed several, and broke the wind of others. And so pestilential was the Air abroad, that the plague itself broke out, early in the year, on the coast of Barbary.

But

But if these swellings did not come on, and the pestilential matter could not be thus thrown out, in bad cases, and no such effort was made, the whole mass of blood corrupted, and the Persons died putrid.

In the very hot, exceeding foul, and hazy weather, after this, great numbers of people were taken ill of these lingering Fevers, and attended with great weakness and a variety of complaints*. There were also more violent cases.†

In the sultry, close weather, in the middle of Summer, after the remarkably violent thunder and lightning, and the fall of great quantities of rain, the burning Fever with Diarrhæa and Dysentery, similar to that in the French and Spanish Fleet when before Plymouth, in the hot weather of the Summer of 1779, immediately came on with us in the

* A lingering case of this kind happened in a Woman of a scorbutic habit, who had reduced herself by suckling her child too long. She had a slow Fever attended with a cough, a Tenesmus, and indeed every effort almost that nature could use to discharge the tenacious matter, without a due secretion of it from any of the glands or Emunctories. Great irritability of the fibres, weakness and lowness accompanied her, and she was in great danger of falling into a consumption, but I do not know the event of her case.

In another Woman one of these lingering Fevers, with a cough and great debility, ended in a tertian ague. The cure of which however was not attempted, under these circumstances, by any preparation of the Bark, but by the use of a saline mixture, with that of a vomit before the fit. After this method a plentiful expectoration came on; the cough first went off; then the cold fit of the ague, and the Fever itself after the next paroxysm. When, after this pretty perfect crisis, she took a light preparation of the Bark thrice a day, to restore her strength, and compleat the cure.

† A Man about 33 years of age, after drinking too plentifully, and then heating himself by mowing, was attacked with a Fever attended with delirium; a Coma following it on the third day, and he dying on the fifth.

center of England||, and also became as epidemical in London; and, I believe through the whole Kingdom, as the Influenza was last year. And people affected with them, and especially with the latter, had not only extreme pain, and great weakness and lowness, but also violent spasms, and internal convulsions, and also great thirst. The flux often hanging on so long, that many of those, in London in particular, who weathered the Disorder, were however so harassed, reduced and emaciated by it, and so perfectly worn out*, that they looked as the people did who had the pestilential Ague in the eastern part of the Kingdom, more like spectres than living subjects. The Influenza also began to appear again; and those who had coughs last year began now to be afflicted with them again: the Disorder at length frequently ending in a consumption. There was also the same dropical tendency, in some cases, after burning Fevers, as there was after the scarlet Fever and sore throat in 1778, and the burning Fevers described by Hippocrates under a pestilential state§.

|| A Man and his Wife, who lived in an house near which some lightning fell in the night of July the 12th, as soon as they smelt the sulphurous fumes were immediately attacked with sickness at the stomach and a Diarrhæa.

* Some Children, in a languishing state after the flux, were relieved by opening issues; which had also had a good effect upon them, some years before, in the Chincough, when nothing else would do.

§ In a Man who had a burning Fever, and pleuretic complaints, with no crises, the morbid matter fell into his legs, and he was apparently dropical: however by the help of blisters to his thighs, and the application of cabbage leaves to his legs, the latter began to subside and grow warmer. But upon the return of hot weather, being attacked with a violent Diarrhæa, his legs grew cold, and he died plainly from the want of a due separation of the tenacious pestilential matter of his Disease: it falling into the extreme parts, and there stagnating, after the manner of the Plague, through its inaptness to be kept in due motion, and the weakness attendant on the case.

Many

Many died of these fluxes in burning Fevers, and of burning Fevers without them, and also of some joined with an inflammatory confinement of the bowels, Disorders now very common likewise. Many also dropped off of lingering Diseases and declines†:—and there were some remarkable instances of sudden deaths*.

Pestilential Agues were as bad in Northamptonshire, and the eastern parts of the Kingdom, as they were last year, and began now to appear in the center of it, amongst us||. And

§ One of these Inflammations of the bowels, complicated with a strangulated hernia, proved fatal though the latter was returned.

† A Gentlewoman, and two young Persons in one family, thus went off in declines.—Cuprum ammoniacum and Bark were now the fashionable medicines, in some lingering Disorders or chronical complaints: the former wearing down persons already too much upon the decline, and the latter confining the morbid matter itself, the chief source of these Disorders.

* A Lady in London, not in years, died suddenly in her Chair.

|| In the latter end of Summer there were three tertian Agues in which the Bark was given, or attempted to be given, and would not agree. The first case was that of a young Man who, after taking a Vomit, began the use of it, but after the first dose was affected with such difficulty of breathing as forced him to desist. The second instance was that of another young Man, who not only took a Vomit, but pursued for a time the use of saline medicines, and also took a dose of Calomel before the Bark, in an usual quantity, was taken between the fits. But, though in this case, the Ague did not return, the Patient became feverish with pain in the head, and was not able to repeat it. The last instance was that of a young Man also, but of a gross habit. The Bark in this case was administered in decoction, without, as far as I could learn, the use of either a Vomit or Calomel, or even an aperient medicine of any kind. The consequence of which was that

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And so fatal a small Pox attended the Pestilential State of this year, that no less than nine Persons were said to die of it by Inoculation, in and near one single Town. For no Disorder that came in, and appeared in and since the year 1778, had wholly subsided and went off, not even the scarlet Fever†. And as to all the rest, so far were they from abating, that they had increased in violence and malignity; only going off for a time, and then returning again, at intervals, with redoubled force. Passing from place to place, and going off in some parts, and appearing in others, as the situation of places, season of the year, state of the atmosphere, and condition of bodies, as having had them before or not, or other circumstances disposed them either to relax or rage, in different parts of the Kingdom, among people whose bodies were inclined to them*.

When the close sultry weather abated, and the Air grew rather cooler towards the end of Summer, many were much disposed to a want of appetite. And notwithstanding the more temperate state of the Air, the burning fever with flux still went on, and also through Autumn and

he was seized in the next paroxysm with delirium, and also a convulsive fit. And though both Calomel and other aperients were now given, it was all in vain. For in the next fit, after going to sleep as usual, it coming on in the night, he was attacked, without awaking or coming at all to himself, with a locked jaw and a coma; and notwithstanding all the means that could be used, remained in this insensible state till he died on the night following.

‡ There was an instance of the scarlet Fever, but without the sore throat, in a Woman; and more of miliary puerperal Fevers, with bilious discharges and inflammatory symptoms as of late in them.

* Not only the human race were greatly affected by this extraordinary intemperature, but there was also a kind of Fever among Dogs this year and the next, that was attended with a running at the eyes; a loss of the use of their hind legs came on not long after, and in the end it killed most of those that were seized with it. Horses also were greatly affected with Disorders, as I have already observed.

Winter,

Winter, and was very fatal†. And besides the complaints already mentioned, it was often attended with a terrible sore throat, as the scarlet Fever was, an undoubted proof of its highly pestilential nature‡.

And there were not only fluxes in these Fevers, but also some Cases attended with violent inflammation and constipation of the Bowels in the latter end of the year, as there had been in the preceeding parts of it; several of which proved fatal. Some also had sore throats with them, and some peripneumonic complaints; while in others the Disorder at first attacked the face externally, but soon after the brain, attended with a rapid increase of Fever with delirium. There were also other bad ardent Fevers, unattended with any such local complaints§.

In

† A strong Girl 3 years old, died of a locked Jaw, in 24 hours after being seized with a Diarrhæa attended with a Coma.

‡ A Man in London who had had a Diarrhæa whether ill treated or not, died in 24 hours after the coming on of a sore throat.

§ A Gentleman near 60 years of age, after a shivering fit, was seized with a burning Fever attended with a vomiting and also a Diarrhæa, which latter continued several days, and, if not restrained by medicine, went off itself. After this however he made bloody urine, for which he took a good deal of Bark in small doses, and he also drank heating liquids, such as brandy and water, on account of lowness. Soon after the use of these things he began to complain of a burning heat in his bowels, as great as if fire itself was in them; and his skin continued as it had been hasty and dry, but not hot, the heat in bad burning Fevers lying chiefly in the internal parts. After the Disorder had remained for some time in this lingering state, he was at length taken with spasms and subsultus tendinum about the 21st day. Under these difficult circumstances attended not only with delirium in the paroxysms of the Fever, but great languor and weakness, and also dejection of spirits, as well as a comatose disposition joined with great signs of putridity, he was relieved by the use of Camphor Julep. acidulated with vinegar, and a small
G 2 dose

In the Winter many died from Consumptions from impostumation in the lungs, and of other chronic Disorders; and there were also, as in the Summer, many sudden deaths. Many were also subject to ill-conditioned external swellings and impostumes, very slow in their progress to suppuration; and the Intermittents of this extremely cold season were very bad ones, and attended with uncommon symptoms||.

CHAP.

dose of James's Powder taken at night. After the use of which a free perspiration came on over all the body attended with a sound sleep. In the morning his pulse was risen considerably; a general natural warmth being diffused over the whole system, attended with, instead of a lifeless look, a lively cast of countenance; the delirium, spasms, subsultus tendinum, and comatose disposition being all gone off. After this he made some urine that deposited a brown coloured sediment, and his sweat had an offensive smell. And though he imprudently indulged an enormous appetite, that came on immediately afterwards, yet by the use of a gentle vomit to relieve his stomach and of a light decoction of Bark to strengthen him, he gradually recovered. Not however without a dropsical tendency in swelled legs, which was taken off by the use of water at Cheltenham the following year. After which in the Autumn he had another febrile effort by an Ague, about the time he was ill of the Fever the year before, which at last restored him to a good state of health.

Another person had a burning Fever this Autumn with a violent Diarrhæa for a fortnight; but, as he was only supported with thin Rice-gruel, used no restraining medicines, and the matter of the Disease had a free discharge, he soon recovered without any bad symptoms.

One of these Fevers, a puerperal case, in a young Woman of her first child, attended with an inflammation and tumor in the abdomen, and a Diarrhæa, proved fatal in a few days. She had got up too early after parturition in the Winter, and drank brandy not only with but without water, as I am well informed.

|| There happened in this inclement season, a tertian Ague, attended with very peculiar complaints and symptoms. Not only with oppression on the breast, cough, and a plentiful expectoration,

CHAPTER VII.

Of the Continuance and Increase of the Pestilential Constitution, in 1784.

AS the preceeding part of Winter had been, so was the end of it severe; but the Spring so uncommonly so, as to be a perfect continuance of Winter in that naturally pleasant season. Having hard frosts with a foul and foggy Air, great falls of snow, sleet, and hailstorms, and such cutting, raw, inclement, and boisterous weather, as had not been known in that season, during the memory of Man; and as if all the cold, that had been wanting to it in some preceeding years, had been collected, and came with full force in this. But notwithstanding all this, signs were not

pectoration, but also violent pain in the Bowels upon the rise of every paroxysm of the Fever, with many stools or rather ineffectual efforts to discharge the offending matter; a tenesmus coming on, either when purgatives were given or not, accompanied with great lowness and faintness on the access of the cold fit, though the Patient was a strong young Man, about 20 years of Age and in the flower of Life. Every return of the Disorder at first gained 7 hours: and though he sweat after each fit he gained but little relief from it, nor was there any appearance of crisis in the urine. However, after taking a vomit the discharges by the bowels became more copious. And though the pain in them returned every paroxysm, expectoration still went forward, and his urine also at length grew turbid; and in a few days depositing a good sediment, he recovered from the Disorder, and obtained a good state of health, that continued for several years.

wanting of there being a considerable portion of the particles of light, or heat in the atmosphere*, as early as the latter end of Winter; a luminous Zone one night, extended across the hemisphere, from east north east, to west south west, appearing at that time; and there being, by the middle of Spring some very violent lightning and loud thunder, succeeded by temporary returns of warm, and even hot weather, and some very sultry before the end of it.—The beginning of Summer however consisted of very cool, damp weather, or of a warm, relaxing, and moist atmosphere. And though there was some very hot weather, in the more advanced part of it, yet it was frequently cut off by returns of some very unseasonably cold: for this year was subject to sudden great changes, as well as some preceeding ones.—The Autumn corresponded perfectly with the Spring, and was as cold for that season; and the beginning of Winter so severe, that the Thermometer was at 33 degrees below the freezing point; there being then great falls of snow, and much more, and also rain, about the end of it.—As to tempestuous and very variable winds, they were now become so common to the climate, that they returned every year, in the several parts of it, with great violence, but never reigned in any one through the whole, with greater force and power than in this. The Air, at some other times, being so calm and close, as to be perfectly stagnant, particularly in the beginning of Autumn; and having not only a common general impurity in it, more or less, but being sometimes infested with thick fogs; some of which were also blown with the wind out of the south in the middle of Spring. But as to falls of snow or rain, they, no more than those of last year, notwith-

* This had been the case, as I had already observed, in several years preceeding; and I suppose always is, when there is a great foulness in the air, that engages and detains the particles of heat, till they accumulate and predominate in it, and for want of due circulation, in a stagnating state of it, bring on that close heat, observable at times, as vapour joined with cold does the remarkable rawness and severity, there has been of late years, at others,

standing the great ones of both, especially the former, which fell in the latter end of the preceeding Winter and Spring, as well as in the close of this year, were by any means equal to those that fell in the two former years 1781, and 1782.

In the latter end of Winter there were very bad burning Fevers in several Towns, here in the heart of the Kingdom*, especially close ones not well ventilated, wherein the Streets were narrow; some of those affected with them complaining of great pain and stiffness in the Fauces, and uncommon heat in the throat and stomach, pestilential symptoms; there was also a fatal kind of small Pox; Fevers with fluxes likewise affected the Felons in some Jails, even not very close ones, from the vast numbers confined in them.

But above all the pestilential or burning Ague, and intermittent Fevers of like kind, that during some late years, in low and damp situations, had infested the eastern parts of the Kingdom, and shewn themselves here in the internal parts of it, last Autumn, began now, and in the following extremely cold weather in the Spring, to be very epidemical.—They frequently followed no regular type; different kinds turning sometimes into each other for a while, and

* In the Spring a Woman who had been delivered 12 days, was attacked with inflammation and great tension in the abdomen, obstruction of the bowels, and a puerperary Fever. She was however relieved by the loss of some blood, with the use of gentle aperients, emollient Clysters, and afterwards that of a little Calomel joined with an Anodyne; for she had but little milk, and that very viscid. After the use of the latter she began to perspire, and in a day or two did so freely; her bowels also becoming free and open. A Fever attended with cramps, or convulsions of the muscles, was also relieved by bleeding. But after after this a puerperary Fever proved fatal in 8 days, after delivery of a dead child.

then resuming their first forms. They seized Persons chiefly of weak habits, when the weather at times grew colder, upon the least exposure to the Air, and often without, and were of the kind taken notice of by Hippocrates in Stat. Pest. viz. *tertianæ, quaternæ, assiduæ, diuturnæ, incertæ et vagæ, implacidæ et inconstantes*†. They were very violent and severe in the fits, whether they were Quotidians or Tertians, affecting the head with intense pain, delirium, and sensations sometimes so irritating as to be almost intolerable, and the body with such great internal heat, that Persons afflicted with them were perpetually calling out for cold water||, and would hardly take any thing but that and the juice of Oranges. Some complained, at times, of pain equal to that of a knife struck into the brain; others were

§ A Man who had taken the Bark and repeated it at times, for three months, had constantly returns, in the form of a treble Quotidian, the true Quotidian, the tertian, and quartan; none of them going on regularly but continually changing into each other.

† Another who had taken no Bark, had a treble Quotidian. And another who had used the Bark ineffectually too early, had an Ague hanging on him a whole year. It would appear in the form of a Quotidian, for two days, and then intermitting one, at other times two days, take on it that of tertian, or quartan, being a mixture of all of them. The chief preparative for his cure was alkaline salt with steel, after the due use of which the Bark at length succeeded. And perfectly similar to this is the effect of the improper use of the cold bath in many Disorders. For though it will often restore the Constitution, for a time, to an apparent state of health, and bring on a kind of equilibrium in the body, when the blood and juices are foul these cannot be lasting.

A young Man of a scorbutic habit, subject to eruptions on the skin, and but an indifferent state of health, upon using sea bathing appeared to be greatly restored. But what was the consequence? Why a year after, by the determination of the foul humours to the inward parts, by thus locking up the outward, he had impostumations and ulcers internally and was dying of a consumption. See my observations on the abuse of sea bathing in my Treatise on Cheltenham Water.

|| See Thucydides of this symptom in the Plague of Athens.
affected

affected with violent spasms, like the cramp; as also with vast load and oppression at the stomach, and great pain in the bowels*; having withal great heaviness in the eyes, and a foul cast of countenance, especially upon the return of these Disorders in bad habits, always sure to happen, after the matter of the Disease had been unduly confined by the early use of the Bark. Nay the pain in some instances was so violent in these Disorders, as to affect People like a kind of Plague, which was their true nature, as I have already observed. Many cases also were very lingering and of long continuance, and sorely afflicting; being attended not only with great weakness, but also lowness of spirits. Some had treble Quotidians; one young Man in the flower of life, after a second ill-timed bleeding that too much reduced him, a double tertian.

These Agues often uncertain and variable in their own nature, as I have said, and apt to change days of return, were particularly so when the Bark had been improperly given. Nothing answering well in them, or continual Fevers, but obtaining a good crisis, by waiting properly upon them, where this could be done, as it generally might when no large evacuations were used, or else the appearance of eruptions externally†. Those which were thrown
off

* A Child, upon taking the Bark early in an Ague, had great tension in the bowels, it not being capable of curing the Disorder; which was relieved by saline and aperient medicines with Rhubarb and Sal. Polychrest, after the use of which it seemed to be getting well; upon repeating Bark however feverish symptoms came on again, and tension in the bowels.

† A young Man recovering from an Ague, upon using the Bark had an ill-looking tumour, that formed itself upon one eyelid: and another, under the same method, an inflammation in one eye.--A Girl, after one, had a tumour in the internal part of one thigh: and another a violent pain in the head, attended with cramps, which was relieved by bleeding, and an impo-
tumation in one armpit.--A young Man also, of a scorbutic habit, after a fit of the gout, had boils in several parts, in order to
dissolve

off by the use of Bark being apt to return, and the persons affected with them to be subject to pains in the teeth, and many worse complaints, nay sometimes death itself, sooner or later, brought on by themſ. Many of them being but too

dissolve and discharge from the body, the remains of tenacious morbid matter otherwise inseparable. Now every Man must be sensible that all these cases most evidently shew, the peculiarly tenacious, foul state of humours in pestilential Constitutions.

But extraordinary ones are in general sought after, as if true Physic were well understood, many of which I shall give. But to insist in those alone is a great error: for the instilling true notions of the causes of Disease in general, and the establishment of the rectitude of common practice in ordinary cases, is a matter of most use and consequence. Let no one then be offended with the simplicity of my observations, which tend to declare more than perhaps some are aware of.

§ A married Woman about 30 years old, who had the Ague this Spring, was ordered to take large quantities of Bark early in the Disorder. And through an almost unaccountable want of discernment, and good knowledge of the true nature of the present, and indeed of all intermittent cases in general, and the right method of treating them, brandy in pretty large quantities, was also given towards the latter end of it. She lived a month or more, but was delirious and perfectly insensible for a week before she died.

A Gentlewoman near 50, to whom the Bark had been given early, in one of these Agues, last Autumn, had this Summer swelled legs; after some months, falling into a slow Fever that gradually destroyed her.

A young Man also who had long complained of great internal indisposition, and had a slow Fever, for which Bark had been improperly given, before there was any due discharge of it, after over-heating himself, by working hard, was attacked with an high Fever with delirium that carried him off.

Thus fatally ended all these cases, wherein the Bark and strong liquors had been injudiciously given, and where no effectual means had been, or perhaps could be, afterwards used, and Nature could not help herself. And in Agues of a prior date, and not of so obstinate and dangerous a nature as these pesti-

too apt of themselves to end in dropfies both of the anasar-
cous

pestilential ones, a Gentlewoman in the decline of life had an intermittent so fixed upon her, by the improper use of this medicine, that she became subject to a return of delirium or kind of insanity every other day, at times, which by degrees so weakened her faculties, though her strength of body kept up, that it at length degenerated, during those times of return, into a kind of Idiotism. A young Man however, to whom, in a sharp tertian Ague, the Bark had been administered, in the same improper manner, too early last Autumn, though he was attacked with it again this Spring, yet, after the eruption of an uncommon sort of scab upon his lips, attended with a soreness, and even rawness in the mouth, throat, and Oesophagus, from the separation of the internal membrane lining these parts, grew better, the Ague going off without the use of Bark. And though he afterwards had so bad an hoarseness and dry cough as to threaten a consumption, yet upon the appearance of a swelling of and eruption on one finger, though the former tended but slowly to suppuration, the Disorder began to give way, and by the help of saponaceous expectorants, went, at length, happily off.

A Gentleman also 50 years of age, who had taken two vomits and some calomel, and waited a month on his Disorder before using the Bark, by imprudently indulging himself, in an imperfect state of the crisis, in both eating and drinking too much after the Ague was thrown off, brought on a stroke of a Palsy. However as some febrile efforts were not wanting, even in this state of his case, by the help of proper aperients and attenuants he recovered, and soon regained a good state of health.

A Person also who had taken Bark twice early in one of these pestilential Agues, received great relief from a remarkable Ptyalism that came on, as well as from discharges from his bowels, and thereby soon recovered,

A Woman and a Boy recovered by merely waiting on the Disorder till the crisis came on, after the method of Hippocrates; the former in ten weeks, but the latter, indeed, not till after five months. They however regained soon after good health and strength, without the help of medicine, as was the case also with a Gentlewoman 50 years of age, some time after, who could not
be

cous and ascites kind†, or in hoarseness and cough, and at length consumption*; but more especially when treated either by weakening or confining methods. The use therefore of great evacuations§, early in a Disease that, even after them, must be waited on, and the bringing on thereby, on account of the weakness that soon unavoidably followed, a kind of necessity for the premature use of the Bark, was certainly very male practice. For often, even when time had been allowed to these Agues, and their crisis waited for, though in vain, they were very difficult of cure. It being sometimes necessary to have recourse to gentle, continued evacuations by the bowels, in order to draw off some of the tenacious matter and viscid humours; such evacuations affording the most effectual relief, till the rest was so far attenuated by repeated efforts, as to become capable of being thrown out externally in scabs about the lips and nose, or eruptions on other parts. For it was of so pernicious and highly pestilential a nature, that Ptyalism often came on in the latter end of some of these intermittent, as well as of continual Fevers, to discharge it. And some of them

he persuaded to take any, neither during the Disorder, nor after it went off.

† * A Man who had lived freely, and was past the meridian of life, after having an Ague this Spring, for the cure of which he took the ariental preparation called the white Drop, had 5 galls. of water, drawn from him in Autumn, in an ascites that began to come on soon after the Ague went off. This Disorder however proved critical; for, upon taking some strengthening bitters, he recovered health and strength, notwithstanding the large quantity of serous fluid that had been collected in him.—A Child however, who had an ascites joined with a consumption, died in the beginning of Winter.—There was also a case of a dropsy and consumption complicated, that came on after an Ague in a suckling Woman. A young Woman likewise, who had an Ague in the Spring, died of a consumption in the decline of the year.

§ A strong Man attacked with a pain in one knee intensely violent, a Disorder now very common, upon the use of bleeding sunk amazingly, and was not able to bear a repetition of it.
obstinate

were so obstinate, and hung on so long, that it became necessary to use some peculiar methods before they would give way, especially in cases wherein the Bark had been improperly given.

While these intermittent Disorders prevailed, there were numerous instances of eruptions on the skin both in Fevers†, and out of them, attended with great itchings, and breakings out on the nose and face, and soreness of the eyelids. Some of these eruptions were uncommonly large, breaking out in large blanches, and others resembled the kind called ringworms, but all the Persons who had them; at least while they continued, escaped the Ague. There were also many remarkably bad Erysipelas's, both of the gangrenous kind, and others: and some of them were attendant on continual burning Fevers, and preceded by shiverings*; others were critical‡, and accidental§. Many also were seized with violent external pains, particularly

† One of these eruptions came on in a puerperary case, upon the coming of the milk.

* A young Woman of a gross habit, who used to indulge her appetite too much, and took little exercise, had the Ague in the Spring, and the decline of the year was attacked with a continual Fever, accompanied with an Erysipelas all over the body that proved fatal. Another very dangerous one, came in one leg, after repelling an eruption, falsely thought to be the Itch, in a Woman also of a gross habit.—There was also a violent Erysipelas in the face, that accompanied the eruption of the small pox by Inoculation: for eruptions of that kind were now very common upon the appearance of that Disorder.

‡ An old Gentleman, after a fit of the Gout in the Winter, had one of these gangrenous Erysipelas's that proved critical.

§ Another Person, who had the Ague, was attacked with one in one leg, whereon he had received a kick from an horse; upon which the Ague left him. See Hippocrates's observations on this Disorder, in *Statu Pestilenti*.

in the knee†, foot &c. preceeded, in some instances by a peculiar singultus, or sighing, and great lowness and dejection of spirits, even for months before. For Diseases, by the power of severe cold, with a foul atmosphere, were raised to so great a pitch of violence this Spring, and were attended with such intense pain, and other inordinate symptoms, as to become, as I have already observed, a kind of Plague§. And yet they were accompanied with great faintness also, and an utter incapacity of bearing large evacuations

† A Man attacked in this manner with pain in the knee, was relieved indeed by bleeding and a mercurial purge; however upon the recession of the pestilential matter into the habit he was taken with the Ague.

§ A Girl about 15, of a bad habit, and whose Brothers and Sisters were subject to lingering Disorders, and inclined to consumptions, and convulsive fits, before the eruption of the menses, was attacked this Spring with a continual Fever, with exacerbations every night, as is the case in common; having vast heaviness of the eyes, and a foul, squalid countenance. The case proved perfectly uncritical; and she remained without sleep, sweating, or any other favourable discharge, till she, at length, became almost like an Idiot; or seemed to have, as one might have thought, a tendency to a mariacal disposition, had she not, when she grew able to walk about, still continued to have a full and quick pulse, and an increase of Fever, as before, every night, with little or no rest, partial sweats bursting out sometimes upon the forehead, and she having an incapacity of having stools in a regular manner, either naturally or by medicine. And therefore the affection on the brain may be more properly called a continued delirium, attendant on her slow Fever, though she was often upon her legs. She remained in this condition, for several weeks, growing greatly emaciated, and looking very pale and wan; often muttering to herself at intervals when she was more sensible, that no one knew how ill she was, and seeming to despair of recovery. And it happened accordingly; for though she was somewhat better, on the coming on, and during the warmth of Summer, she died of the Disorder in the Autumn.—Here is a case wherein the tenacious, foul, pestilential humours were not attenuated, the texture of
the

evacuations of any kind, especially drawing of blood; all of them bringing down the strength too fast, and protracting the crisis†.

Along with other violent complaints, many were affected with great inflammation in the rectum, attended with such shooting pain, as if a fork were struck into it; and with bad kinds of Piles with large fluxes of blood, Tenesmus, and violent pains in the bowels. And when Summer came on, inflammations in the bowels were pretty frequent, Pleurifies and Disorders of the lungs, Rheumatisms, and other dangerous and sometimes mortal burning Fevers, unattended by these Disorders, as in former years. There were also sore Throats, ulcerations in them and in the mouth, eruptive Fevers of the scarlet and miliary kind§, and the Measles. Diarrhæas in Fevers likewise came on sooner in the year than usual, and there were some cases of the Dysente-

the blood opened, nor the vessels emptied and constitution beforehand relieved by the use of purging mineral waters, or any other proper methods, that, notwithstanding the long continued efforts of nature, in a strong constitution, and the use of Calomel in its decline, had a fatal termination.

† An elderly Gentlewoman, of a naturally strong and good habit, in a Fever attended with a pleurisy she had this Spring, and in some returns she had of it, had blood drawn ten or eleven times. However, after this unaccountable procedure, not properly tending to promote the separation of the matter of the Disease, and bring on its discharge, but reducing her too much, when she was thought to be recovering, she had a stroke of a Palsy that carried her off.

§ A young Man had an eruptive Fever, of the scarlet kind: A child also, after a violent vomiting, purging, and convulsive fit, on the attack of a Fever, the use of a vomit and the application of a blister, a miliary rash; it also broke out much about the mouth. And though, notwithstanding all these efforts, it had still great heaviness in the eyes, common now to all Disorders, yet, upon the coming on of a Ptyalism it recovered.—Several pregnant Women also had miliary Fevers,

tyſ: and indeed a concurrence of all the Disorders that aroſe in 1778, and the beginning of 1781, except the ſcarlet Fever and ſore Throat with its ſpecific ſymptoms, and the degree of violence it appeared in, in the former, with the addition of the burning or peſtilential Ague. And even that Diſorder itſelf broke out in a Family, that came to London, the year following this, with as much violence, and attended with as extraordinary ſymptoms, as in the very riſe of it.

Many died of the abovementioned Diſeaſes during the Summer*. And before, and about the middle of Autumn, many were taken with violent Diſorders of various kinds, that proved for the moſt part very lingering caſes, and difficult of cure. And among the reſt, were very bad, obſtinate, and dangerous Fevers||, many of them attended with inflammation of the bowels; there were alſo many Agues then as in the Spring. In fact burning Fevers were ſo mortal, about this time, in ſome neighbouring Towns, that, in one little place, five Perſons were buried, one Evening;

§ This Diſorder was epidemical in a neighbouring Town.

* The Plague in the Eaſt indeed, which was ſo violent and fatal laſt year, had been checked by the extreme cold in the beginning of this; not however till half the people in Cherson were ſaid to dye of it: and it broke out again with great violence in Smyrna this year; being likewise very bad on the coaſt of Barbary. There was alſo what was called the Plague at Meſſina; but was in fact the burning Fever attended with Coma ſomnolentum. Thoſe however who had not this unnatural ſleepineſs for 2 or 3 days in the beginning of the Diſorder, were ſaid to die of it.

|| In one houſe, wherein a young Man died of a burning Fever, another had one with a quinzy; another one attended with a violent pain in the ſtomach; and the reſt of the Family the ſame Fever, after a ſlow manner, without theſe complaints; but all of them with the uſual ſymptoms of great weakneſs and dejection of ſpirits.—In another place a Man loſt his Father and Mother, and 3 Children by theſe Fevers.

and

and the spotted Fever was said to have appeared in another. For great indisposition, as I have said, of all sorts prevailed†. And the latter end of this season was peculiarly remarkable for bad coughs, attended with a large expectoration of very viscid Phlegm; and for slow Fevers attended with great lowness of spirits, and uncommon debility.

In the cold, raw weather in Winter there were many Fevers with Rheumatism; being often accompanied also with Diarrhæas, and other symptoms attendant on a dissolved state of the humours. The autumnal cough also continued, and prevailed much in this season. Coughs also were very common towards the end of, and after slow Fevers, and long continued Disorders, as in 1778*. And, in the latter end of Winter there were many cases of inflammation of the bowels, as in Autumn; and such bad burning Fevers at Chester, that it was reported the Plague was there.

As to chronical Disorders, there were great numbers of consumptions, and among multitudes, of Dropsies, one of the Ovary; in which the collected serous matter was very viscid, and the case fatal soon after its discharge. There were also other peculiar cases, one of which was an aneurism in the right subclavian artery, in a Man§; another an uncommon

† About this time there was a fatal puerperary case, in a Woman of a relaxed and somewhat oppressed habit: she was seized with convulsions soon after delivery of a first child, and died in a few days; remaining most of the time, in an oppressed, insensible, and weak state, with very ineffectual efforts, either of nature or attending the use of medicine, for her relief. And though weakness and oppression of constitution, may, in some measure, account for this, yet it will by no means for the whole, for the languid and foul condition of bodies, during this pestilential state, has often been very extraordinary.

* Hippocrates takes notice of this disposition to expectoration in the decline of burning Fevers, and also of the strong tendency violent ones of this kind had, among the Greeks, to end in a fatal Peripneumony.

§ The Man who had this Aneurism, was about 30 years of age, of a short stature and small make. It began during a cold that hung long on him last Winter, attended with great oppression from phlegm; the hereditary

common Tumor, supposed to be a scirrhus, in the internal part of one side of the breast, also in a Man, and so large as to distort the spine; another was a peculiar consumptive case, in a Child, 9 or 10 years old, attended with a discharge of bloody Urine||.

tary and acquired tenacious matter wherewith his little, though tolerably strong body, was loaded, making even this large and strong vessel, by degrees give way. It did not increase much during the warm months, but greatly, on the coming on of cold weather next Winter; and bursting early in the Spring next year, destroyed him. It is to be noted that he was a Miller by trade, and consequently used to lift heavy burthens; which probably might contribute to the rise of his Disorder.

|| This remarkable case arose in a little Gentlewoman of a scorbutic habit towards the latter end of last year; she continuing to make water frequently tinged with blood all through the Winter, and being thereby reduced to a very weak state. Incapable of bearing any active or aperient method whatever, recourse was had to the use of small doses of salt of steel, in order to prepare her for the use of such farther methods as might be necessary in her case. And by the help of it she grew better and stronger the succeeding Summer. But when thus prepared for a mild, alterative method, by the proper use of an aperient mineral water, this being neglected in its due season, and no effectual means used to clear the habit of the radical cause of the complaint, and alter the foul state of the blood, it returned, on the decline of the year, with greater violence, when the vicious humours were again pent up by cold, and there was no freedom of perspiration or other proper discharge of them. Even so rough a medicine as Calomel was now tried in very small doses, because it had been useful in some cases of this kind, though widely different from this. But this forcible method, instead of affording relief, increased the flux of blood, as might naturally have been expected, and the weakness attending it. Upon which large doses of nitre were given; which restrained indeed, in some measure, the former, but not being able to carry off its cause, she was soon after attacked with asthmatic and dropical symptoms, and died in a few days.

CHAPTER VIII.

Of the Continuance and Increase of the Pestilential Constitution, in 1785.

THE former part of Spring, as last year, was uncommonly severe, and like a continuance or return at times of Winter; abounding with frosty, raw, inclement weather, and cutting winds out of the northern points*. These were not however so tempestuous as those about the same time last year; neither were there such great falls of snow; it being through the whole season remarkably dry, though the atmosphere was foul, especially about the middle of it, and also warm at times with variations of the wind into the south. Much of the latter part of it also was very warm, foul, calm, close, and once so exceeding hot, as to raise Fahrenheit's Thermometer up to 77; the next day being on the contrary so cold, that it sunk it again to 60. However after cold weather had continued some days, it grew warm again, and even pestilentially hot, the latter end of it being a mixture of both. Thus for want of rain in its due season, the Air continued intemperately cold or hot

* I have already more than once taken notice, that, notwithstanding the extreme cold in several springs of late, there were sometimes luminous meteors, in the form of arches, encompassing the earth, and extending across the hemisphere at night, shewing a great predominance of the particles of light or heat in the Atmosphere: one of which reaching from the eastern to the western part of the horizon, appeared one evening in the Autumn of this very year. But this Spring, notwithstanding its coldness, there was a more unusual or extraordinary Phenomenon in Water instead of air: the Sea on the coast of Suffex, and some other southern parts, appearing so light as to resemble fire, and great quantities of luminous particles issuing from the waves, as often as they dashed on the shore.

from the middle to the end of Spring, and even to the middle of Summer†; there being through the power of the former, some very extraordinary hailstorms, even in the middle of this hot part of the year, and by that of the latter, the Thermometer being raised up to 80, in a situation facing the north, thrice more at separate times as high, and once, I was informed, at least a degree or two higher before the end of it. There were however in the beginning of Summer, after the great drought in the Spring, some storms accompanied with high winds, and after these some peculiarly fine gentle rains, though late and out of due season, and such as usually fall earlier in the year, that tempered the Air for a while, and rendered it cool and pleasant after them, though the change made therein thereby was great, and much affected bodies indisposed§. These were followed by great gluts of rain, through heavy showers that poured down, as it were, and a very vapourish and foul state of the atmosphere; but there was no settled rain, though so much fell, till the latter end of this season.— Thus the Spring was remarkable for extreme cold with great foulness of the atmosphere, a long continued drought, and some very calm, close weather, at times, towards the end of it; the Summer for the number of gentle showers that fell in a manner unusual in this hot part of the year, and the great quantities of rain that afterwards poured down in heavy ones, when the sky was once unlocked; as well as for the foul state of the Air, and great transitions from several returns of excessive heat, and others of moisture, warmth, and closeness, to inclement cold.

The Autumn consisted, in some parts of it, of warm, calm, close, gloomy and very moist, and of cold and frosty

† The drought was so great as to be almost without precedent. It affected part of Germany, France, Spain, Italy, Great Britain, and Holland, and as far as the 46th degree of latitude.

§ Giving a general account of the quantity of rain that falls in the year, without describing the mode of its falling, as well as informing us of the season in which it fell, and its power as connected with air and heat, will convey no good ideas of the temperature of the atmosphere, and its effects on bodies.

weather, with not only a very foul general state of the atmosphere in both, but also fogs in it, that coming in the wind out of the north west much infested the Air||; and there was often likewise an obscure sky. In other parts of it tempestuous winds rose attended with heavy rains, hail-storms, and great falls of snow†.— In the Winter also there were such great quantities of both, that travelling sometimes was interrupted thereby in several parts of the kingdom, as well as most tempestuous winds, especially upon the coasts. There was also such cold weather before the middle of it as sunk Farenheit's Thermometer, here in the heart of the kingdom, to 16 below the freezing point, and some very cold also in the middle, and towards the end of it. But though there was a great deal of frosty weather, a frost never continued longer at any one time with us than about a week; it was however said to be very cold indeed in the north of England. As to raw, foul, foggy, moist, calm and gloomy weather, some of them abounded in the intervals of that which was tempestuous with falls of snow. For some days however, after the severe cold in the middle of this season, it was warm for the time of the year, though foul; the Air growing still more impure in the cold stormy weather at the end of it, thick fogs being then blown in the wind out of the south.

Burning Fevers* with great languor and dejection of spirits, high putrescence†, and such an increase in their pestilential nature, as often to become suddenly fatal, ap-

|| Towards the latter end of this season the Air and weather were so foul in London that people could hardly breathe.

† In Lithuania the weather, for two months, was said to be so intemperate that the Crops could not be got in; being spoiled by the extraordinary quantities of hail, snow, and rain.

* One of these in a Child was attended with Coma and difficulty of breathing: and another in a young Woman about 18, among other bad symptoms, with great weakness of the pulse, inability and want of natural effort, and also inattention.

† The excretions both by sweat and urine even in a Child were remarkably offensive.

peared early this year, and in some confined situations ranged almost like the Plague§. Agues and intermittent Fevers were also attended with great putridity, as well as continual ones; being raised by the uncommon severity of the weather in Spring to an high pitch of violence, accompanied with intense pain in the head; and frequently turning into those of the continual kind, and having fatal terminations||. They were in general very intractable, even much more so than those of last year‡; and were relieved chiefly by discharges from the bowels, either coming on naturally or by the use of Aperients, this year as well as the last*. Among other Disorders there were inflammations of the bowels as usual and very bad cases of them, and many were affected with Hoarsenesses and Coughs. The Measles, Small Pox†, and Dysentery were also epidemical in

§ In St. Thomas's Hospital in London, 20 were reported to have been buried in an Evening; some of them dropping off in 24 hours.

|| A Child in a Quotidian, with this most violent pain in the head, had 2 vomiting for several days, nothing passing by the skin. And, notwithstanding this evacuation, or any methods used, the former, in a few days more, became so intense, as to make it at times, perfectly phrenetical, with very short remissions of the Fever. Having black Stools, and other symptoms of high putrefaction; in which circumstances it died in a day or two more.

‡ In an intermittent case, wherein the Bark was given early, the Disorder constantly recurred; nor did the Person recover till an Impostumation was formed, and the matter thus thrown out externally.

* A Boy 8 or 9 years old, who had an Ague 7 or 8 weeks, was relieved at times by discharges of bile and phlegm both upwards and downwards; and at last had very copious and critical ones of most tenacious and offensive matter both ways before he recovered.

† The small Pox by Inoculation was unusually fatal; one child dropping off through a corruption of the whole mass of blood, and another going off suddenly, in an uncommon manner, with symptoms of oppression from phlegm, 6 days after the small Pox had appeared, though they seemed to proceed well to maturation; they were indeed both of them of but indifferent habits.—Another after Inoculation with little eruption, was attacked soon after recovery with an asthmatic Disorder, a complaint hereditary in the Family, which proved fatal.

Another who had also been inoculated in the Spring, was attacked, in the beginning of Autumn, with convulsions, succeeded by a Fever of what is called the intermittent kind, but which in fact had no real intermission, and was very violent in its paroxysms; and next Spring with an obstinate Ague,

in several places; and towards the latter end of this season, the Scarlet Fever and Sore Throat was in London^s. There were also bad Erysipelas's, and vast numbers had burning Fevers at this time, and in the beginning of Summer: Disorders being then of a very sluggish nature, obstinate, and the morbid humours very difficult of separation||.

In the beginning of Summer, and in Autumn inflammations and humours in the eyes were epidemical: and in the middle of the former, there were some very bad cases of inflammation of the bowels‡; especially upon some changes, about that time, from great heat to cold, and many violent complaints of the colic kind*. And the great change
of

Ague, and a return of such dreadful convulsions as were more than once very near proving fatal; it was however at length relieved by a critical discharge of most tenacious humours, that came away in kind of lumps from the bowels.

§ I mentioned, in my account of the Diseases of last year, that the scarlet Fever and sore Throat broke out with great violence in a Family that visited the Metropolis this season. One child died; another narrowly escaped through impostumations in the ears; which discharged a quantity of very foetid, and sometimes bloody matter, for some years, attended with an almost total loss of hearing. And indeed but few persons in the Family escaped being affected, more or less, with this most contagious pestilential Fever. But they who were most affected had the glands of the bowels and other parts braced up, and the foul humours confined by the use of the Bark. Whereas a fat, gross Woman, a Servant, in whom a Diarrhæa came on, escaped all the bad symptoms that others had, and not only soon, but effectually recovered.

|| Not only human bodies were affected, but Horses also about this time had bad colds, and fevers attended with the staggers. Nor did even Dogs escape being taken with very peculiar Disorders as in a former season; and there were more numerous instances than usual of canine madness.

‡ An elderly man had now a violent attack of this Disorder, to which he was subject, but he recovered; a young Man however died in a violent case of it in the Spring.

* Complaints of this sort were so common now, that two Gentlemen who had been at Cheltenham, were affected with them: one of them being attacked, upon his return, with pain and obstruction in his bowels, which with proper assistance soon went off; and the other with pain in the Stomach; the matter however occasioning the Disorder, was soon thrown out thence into the limbs, and presently dispersed and carried off.—

of the temperature of the Air in the latter end of it caused intermittent Fevers to become almost continual ones; and attended with delirium†, large hæmorrhages§, and other violent symptoms; the change into the latter being sometimes absolutely perfect. Many were ill and died of burning Fevers‡ about this time, and in the beginning of Autumn*, especially in close places. They were now frequently attended with Diarrhæas: whereby Persons affected were greatly weakened, and much reduced before they recovered. But in cases wherein the Dysentery came on it was much worse with them, and they were in more danger||. In many of them, especially Persons of strong habits there

Another Person, who did not go there last season, was affected, at times in the Winter, with pains both in the bowels and limbs. In the former instances we find, that though the morbid humours were attenuated, in some measure, by the Cheltenham Water, they were still of so tenacious a nature, as to be incapable of speedy separation, even by the glands of the bowels; the difficulties that attended perhaps arising from not persisting long enough in the use of it. But we see plainly enough that, from some cause or other, they were in a worse state, and still more unfit for discharge in the last. Which cannot well be attributed to any thing but the want of the use of this powerful water the preceeding season.

† Two Persons died unexpectedly in these Disorders; and another, in an intermittent, or rather remittent tertian, had violent and long paroxysms with delirium.

§ A young Woman, on the coming on of one of them vomited up a large quantity of blood, having violent pain in the head; and another, after having had, for some time, a violent pain there, was subject after it to such a contraction of the muscles of the eyes, as to give an oblique cast to them for some time.

‡ An old Gentlewoman, who had one of these, in a lingering manner, three years ago, was now taken with a violent one accompanied with delirium, and died of it.

* At this time a young Woman had a large hæmorrhage from the lungs in a Fever, for which she improperly enough, took Bark and other astringents; in consequence there was no crisis. She had after it a cough, and also a Diarrhæa; which latter was imprudently restrained. She died in two years of a consumption.

|| A Man above the middle age on the 21st of August had a fit of a tertian Ague, and went out and worked hard in the fields, in hot weather, in the intermission of next day; the consequence of which was a violent return of it, on that succeeding. And though such relief was had from vomiting, the

there was a full, loaded and oppressed pulse, tending to some degree of hardness. And yet they complained of excessive weakness and faintness in the very beginning of them, some dying in 24 hours after the attack. They had also violent pain in the head, and were, as they expressed it, *puttered* to death: undoubtedly from the great quantities of hot, gross, impure vapours rising in them, from the morbid pestilential humours, not regularly discharged. Nothing seemed to do them good. If they were purged however in the beginning they sooner recovered, or if a Diarrhœa came on at any time of the Disorders. But if an intermission came on the Bark would not do. Intermittents also were very epidemical: but out of a dozen cases, that medicine would not agree in one, be the intermission ever so perfect*.

In the latter end of Autumn these burning Fevers were much attended with sore throats. But above all there was

the use of aperients, and considerable sweats after the paroxysms, that he seemed to be getting better, yet he was unexpectedly attacked on the 28th instead of the 29th, the usual day of return, with a continual Fever attended with Coma, dysentery, and extreme weakness, there having been nothing critical in any of the preceeding discharges. After blisters had been applied, infraacted doses of Ipecacuanlia given, and other methods used, being in a few days in so reduced a state, by the profuse discharges from his bowels, that he was not likely to live, it was thought adviseable to support him by a light preparation of the Bark. This luckily purged him instead of confining his bowels. And though he seemed worse, in some respects next day he afterwards gained ground, and by the 8th of September was pretty well recovered. However when he got abroad he was subject to an asthmatic Disorder for some time. And this is the only case, under my inspection, wherein the Bark given so early in a continual Fever, or indeed any other, seemed to agree tolerably. Even this not happening till after having large discharges from the bowels in a dysentery, and being reduced thereby almost to a dying state.

§ Discharges by the bowels, and those very profuse ones too, by the use of medicines, were found to be eminently useful in the first stage of the pestilential Fever at Philadelphia in America last year. See what I have said on the great use of aperients in burning Fevers, in my Treatise on the Pestilential Constitution of 1778.

* A Person who had the Ague last year, upon taking and repeating the Bark, had several returns of it; nor did he get well till he had a Diarrhœa, and also an impostumation below the ear.

a remarkable tendency of the morbid matter to the bowels, as there had been through the whole year, as hath been already noted. Producing inflammations and obstructions in them, large hæmorrhages from the stomach†, and other violent Disorders: undoubtedly owing to the compaction, confinement, internal direction and impulse, as well as stagnation and rarefaction of tenacious and impure humours, which could have no proper discharge from the surface of the body, nor due secretion by the other glands.

About this time, and in the beginning of Winter, Feverish Disorders, that seemed to be wholly gone, were apt to return. Relapses were also common in the present burning Fevers, and complaints connected with them. Many were also much affected in the stomach and bowels, as in the preceding seasons; the morbid humours having still a pe-

† A young married Woman, of but an indifferent habit, who had an Ague in the Summer, that probably went off without crisis, was now attacked with a burning Fever and violent Vomiting with a profuse discharge of blood from the stomach. On the decline of the year she had felt her stomach gradually swelling and increasing in size before the vessels burst, and the discharge came on. Which was much larger than that from the lungs, coming on also on the attack of a Fever, above recited, or that which, under like circumstances, came from the stomach of another person some time ago. The heat internally was so great, that she had a very frequent call for cold water, and could take nothing but that and fruits. Notwithstanding the violence of the hæmorrhage, when it stopped, she had a close hard pulse, and a very costive state of the bowels, as was generally the case now in these Fevers. However by repeating gentle glysters, for she could not retain any Medicine taken by the mouth, she was somewhat relieved, and her pulse grew rather softer. But she was still very sick and vomited up every thing; having a very dry, foul, and brown tongue, and still also great internal heat: and after a few days the vomiting of blood returned for a day or two, when the Fever rose in the paroxysm, by which she was much reduced, other symptoms remaining nearly the same. However by the beginning of Winter her Fever abated, but not before; and in consequence of a more due attenuation of the humours, her bowels became more open, which greatly relieved her, but she did not recover her strength till next year, when the weather grew warmer, and gave assistance to her constitution.—It is to be noted that she was of a foul habit, as I have hinted above; which made her subject before this, to a violent attack, of the scarlet Fever and sore Throat, in 1778: from which and its consequences she had never well recovered when she was taken with this burning Fever.—She had a scorbutic eruption on the skin in the summer after this illness, and pain, and swelling in the face, nose, and gums, with an impostumation in the latter.

cular tendency thither||, and particularly to the liver, as they had last year to the lungs, in order to pass off by expectoration. In fact there has been a great increase in the violence of acute Disorders, and the obstinacy of those of the chronic kind, for several years: the former having been very remarkable indeed, but in nothing more peculiar than in respect of relapses, as was the case also in many of those burning Fevers taken notice of by Hippocrates in *Statu Pestilenti*.

About

|| A Gentleman between 30 and 40 years of age, by his profession much exposed to the injuries of the weather, and the ill effects of getting up in the night, and who about 13 years ago, under the putrid constitution, had had a very bad Fever treated injudiciously with bark in its beginning, and in consequence defective of due crisis in its termination, and from which he with great difficulty recovered, was attacked this Autumn with a burning Fever, with a tendency of the morbid matter by reason of its tenacity, to his bowels, as was the case also in the putrid one, but by which they were now much more oppressed and obstructed than in that, the liver also appearing to partake of the general Disorder in them. On this account he took 5 grains of Calomel on its coming on: in the course of it being affected with violent spasms, not only in the bowels but other parts of the body; and by reason of the insuperable tenacity, as I have said, and inseparable nature of the diseased humours, in great danger of falling into a Tetanus; which if they had not had some partial discharge by a flux from the bowels that came on, would most probably have been the case. After taking the Calomel, round mercury with aperients, and the use of Clysters, the complaints in the bowels seemed to be much relieved. However by two relapses that he had, through coming down stairs into the air, and the use of gross food before the Disorder was gone off, and especially by the last return of it, he was so much reduced by the end of that season, that it appeared necessary for the bark to be administered. The medicine, happily enough, did not quite lock up his bowels, but brought on a return of such violent spasms and contractions in them, that a pipe could scarce be introduced by the rectum when Glysters were used; he being on account of obstructions that still remained in them, under a kind of dire necessity, under these circumstances, of repeating Calomel,

About the middle of Winter sudden deaths were common, not only among old People, but also the young and

mel. By this he was much irritated, and oppressed by the bark : so that in the end of Autumn, he was in so weak a state that he could take no medicine at all. The last he took, improperly enough with intention to take off the flux and effort by the bowels, was the wax medicine: for the discharge from them, though small, still continued, and was the chief thing likely to save him. When medicine could be again administered, he took a little bark on account of great weakness: the tenacious humours however were so confined by it, that a tenesmus came on again, with violent strainings so as to discharge blood. In cases that require time for a cure, oppressing the body with gross food in their beginning, thus producing relapses, and rendering the repetition of mercurials necessary; which upon a second use in the present Disorders, greatly irritate and weaken, is the surest way to bring on a premature call for the bark. and before it will agree, and thus make a case end in fatal consequences. However though this Patient was so much weakened by the frequent repetition of the above mentioned irritating medicines, and by relapses brought on by such oppressive food, and to add to the mischief, the morbid matter, as far as nature could suffer it, confined, and her efforts resisted in regard of the only discharge that under her distressed circumstances, could help her, namely, that by the bowels, yet, wonderful to tell, after all, that still continuing, through great strength of constitution he weathered out this lingering and dreadful case. Not however without being, on his recovery, subject to an obstructed state of the bowels for some time, to scabby eruptions on the face, and the falling of the morbid matter into one leg: which gave great pain and formed a tumor there, attended with a caries of the bone; so inveterate was the pestilential matter that fixed on it.

Another Man about the same age, or rather younger, ill at the same time also of a burning Fever, was so much reduced by a strong purging medicine taken in the beginning of the Disorder, that, though he had afterwards a tendency of the morbid matter to one thigh, by way of impostumation, and also swelling of, and eruptions on the legs, being of a very scorbutic habit, yet the former receded, and the latter proved ineffectual, and he died in a few days. Verifying thus my observations on the impropriety of reducing Patients too much in the beginning of these Disorders.

middle

middle aged. Some of them happened in the very beginning of Fevers, others not : but both were undoubtedly owing to excess of oppression with foul humours and putrefaction. For bad burning Fevers began again, if they may be said ever to have ceased, in the very rise of the year, attended with violent delirium, great oppression, and sometimes difficulty of breathing, and high putridity§.

Among these there were some bad puerperary cases, and also some with Rheumatism : the latter being, as well as those without such external pains, accompanied with delirium ; and as to the nature of the burning Fever, in other respects, of the same specific kind. Some violent cases of them received benefit from bleeding, as other kinds had by hæmorrhages, as noted above. There were also some very irregular Agues†.

Parturient Women were this year remarkably subject to the Piles, and to violent floodings after parturition ; though some by good management escaped. Cases of insanity and cancerous Disorders were also more numerous than usual ; the latter even affecting several young Persons*.

§ A middle aged Woman who had a Fever in the Summer, without a due discharge of it, died now of a return of that Disorder, although she had a settling urine ; this being the third Fever she had had within a year or two.

† A Man some time ago had a septimanal Ague, or one that returned only once a week. Which now, in the cold weather of Winter, changed into a quotidian and tertian alternately ; having it two days together and then missing it the third.

* The pestilential State of the air, which in this and several preceeding years, appears to have, more or less, affected all Europe, was so violent this year in the east, that the Plague not only raged at Constantinople, but also so at Tunis on the coast of Barbary, that 300 persons were said to die daily in the latter.

CHAPTER IX.

Of the Continuance and Increase of the Pestilential Constitution, in 1786.

THE beginning of Spring, as in the two preceeding years, was uncommonly severe, with sharp winterly frosts, and cutting winds out of the north and east, and falls of snow. But with these, there were also, at times, tempestuous winds out of the south and west, with rain, raw and variable weather, with a foul atmosphere. There was likewise, notwithstanding the extreme severity of this season, lightning even with the snow at this time of the year, and before the middle of it, an uncommon heat one day in the Air, observable immediately on coming out of doors, and sometimes gentle rains out of the southern points, with a misty Air. At others it was very cold and raw out of the north and east, with a gross foul one. There being, in fact, a confused mixture of the elements, and, especially at times, a sort of combined and united power of them all; with a predominance however of a cold and raw Air to the middle of this season. After this however it was uncommonly warm and severely cold by turns, with rain or snow, a foul raw Air, and often an obscure sky; and in the latter end of it, also stormy with thunder, and large quantities of rain. And though the beginning of Summer was fine, clear, and hot; being once so much so as to raise the Thermometer up to 79; yet all this hot weather was attended with a cool northern Air. And it was followed by tempestuous winds with large quantities of rain, and a great change in the atmosphere;
the

the weather before the middle of it, being sometimes remarkably cold for this part of the year; though at others consisting of a warm, moist, stagnating Air, tending at times, to the close and sultry with rain. And in the latter end of it, there were such severely cold, tempestuous winds, out of the north east and north, as I never before knew as this time of the year. The weather being thus excessively cold, or warm, calm and close, with a foul Air, and heavy thunder-storms at times.

In the beginning of Autumn were heavy rains, and tempestuous western and northern winds; one of the former being a perfect hurricane†, and most of the former part of this season remarkably tempestuous. But in the middle of it there was some warm, calm, and fine weather for the time of the year; though not without the sky being sometimes overcast, the weather gloomy and Air foggy. This part of it consisting of returns of such weather, after intervals of cold and raw or of tempestuous with rain: and the latter end of it chiefly of cold, raw, foggy, obscure, gloomy, and moist weather, with storms of sleet and hail, and an uncommon severity of Air. It being towards its conclusion, still more moist, foul, and gloomy, with a stagnant state of the Air, followed by heavy rains or falls of snow, and tempestuous hurricanes out of the south west. Thus this season of the year consisted on the whole, of tempestuous weather, with heavy rains or falls of snow, or of that

† To give some Ideas of the extraordinary intemperature of the Air, and disturbed state of the elements this year, I shall take notice of a much more remarkable hurricane. that happened, the last day of July, in Herefordshire. It came out of the north west, and tore up trees almost instantly by the roots; and of one in Suffolk, attended with a thunderstorm of a very peculiar kind, like a dark mist reaching from the earth to the skies, and approaching with a great noise, like that of a fire roaring up a stove chimney; leaving a strong sulphureous smell behind it, that hung on the throat for some time: the wind breaking 7 trees in Wesley wood off in the body, and damaging an 100 more. There were also very terrible hailstorms about this time.

which

which was raw, foul, and excessively severe, with an interval or two of some tolerably fine about the middle of it.

As to the Winter, the foul, moist, gloomy, cold, raw, and inclement weather of the latter end of Autumn, went on and increased in it; and also the tempestuous winds with larger quantities of rain: these being succeeded by some very severe frosty weather, for some days, and this by a mixture of bad. It being in particular very moist, foul, foggy, with sharp hoar frosts, and cold and raw, with a stagnant Air, and obscure sky, about the middle of this season, with now and then a fine day. And this was also the state of the atmosphere towards the end of it, with the addition of falls of rain and snow at times, and tempestuous winds again out of the south west: to which and to the south, though there was bad weather out of all points, they were more than usually addicted in the present year. This part of it however concluded with a contrary state; there being then some fine, calm, open, and remarkably warm weather.

From a due consideration of the above description of the state of the atmosphere—of the severity of the Spring so favourable to Agues, and of the moist, foggy, hot, stagnant, and variable state of the Air, both to them and burning Fevers, which had been before brought in, and were now established by intemperature of various kinds, foulness and irregularity of seasons, and by the great power the force of tempestuous winds has of increasing the influence of bad Air upon the body, and the peculiar ill effects of those out of the southern points, we are not to wonder that both began early in the Spring, to be very epidemical, and of very bad kinds||. Burning Fevers were attended with uncommon

|| At this time a Woman of a Scorbutic habit, in whom the menses were deficient, was attacked with a burning remittent Fever, attended with a large discharge of blood from the kidneys, and also one of foul humours from the bowels. Both were highly putrid and offensive, having also so great tenacity, that they

mon dejection of spirits§; and in them such extraordinary discolorations appeared in the legs and other parts, on the very attack of the Disorder, as seemed to threaten a gangrene†; and they were very uncritical. The same livid discolorations appeared also in lingering cases of Fevers of a slower kind; which sometimes were so obstinate as to hang on 5 or 6 months. For each sort was a Fever of a truly burning kind, manifestly attended with the same characteristic symptoms, and essentially different in nothing but the degree of violence. And even the most acute cases in general, were by no means equal in that respect, to those of the Greeks: a distinction evidently owing to difference of climate. But there was not one *Typhus*, that I know of, properly so called. Nor though there were many fluxes of morbid matter to the liver, for discharge, and oppression, and thence inflammation arising in it, on the attack of Fevers, was there one *hepatitis*, under my observation, without a burning Fever original in the case. Nay I shall even go farther. For there were intermittents, or rather remittents of a peculiar kind, for the Fever, as is common enough in their beginnings, was never off, that were attended with the same great languor and dejection of spi-

they would hardly separate from the vessels in which they were received, and she found herself relieved from their discharge. Vitriolic acids, as is usual in such cases, were given, which disagreed with her, and, as might be expected, locked up her bowels. However, after the Disorder had hung on some time, she was relieved, at length, by small doses of James's powder, and taking to her bed. For that medicine, under these circumstances, acting by perspiration, after she had been subject to a dry skin, through the whole course of the Disorder, carried off the Fever, and by attenuating and discharging thus the foul matter that occasioned it, restored her to health.

§ They were so truly Pestilential, and the morbid matter of so virulent a nature, that a man by one of them was not only made bald for life, but lost his beard also.

† Fumigations with camphire were found useful in these cases.

rits: having also frequently the same fatal issue*. In them there was an uncommon degree of nausea and Disorder at the stomach. And even Agues themselves were sometimes accompanied with profuse discharges by the bowels as well as by the skin, and such great internal heat, as to the sensation of persons affected with them, seemed equal to that of fire; and such an inextinguishable thirst, that they thought they could drink a gallon of cold water at a draught†; being able to relish nothing else. These also were in some peculiar instances fatal‡, and of the burning kind: having all of them the same characteristic heaviness of the eyes, the same great internal heat, and being essentially different in little more than the degree of violence, type, and mode of action§; all to answer the same end, the discharge of
tenaci-

* Two young Women died of them.

† See Thucydides's account of the Plague of Athens.

‡ An old Woman died in the second fit.

§ Dwelling too much on names without understanding the nature of the Diseases is often attended with male practice, and the worst of consequences.—Even Hippocrates himself was in an error in characterizing Diseases by their symptoms, and retaining some of the distinctions in use before his time. For what is phrenitis? but a Fever with increased force, affecting the brain more powerfully than in a delirium: and which should therefore be called a Fever with phrenitis: as one attended with delirium or comatose symptoms should be a Fever with delirium or coma.—If the morbid matter be thrown upon the bowels, producing inflammation in the intestines, liver, &c. or other Disorders in them, one with inflammation of the bowels, with hepatitis or inflammation of the liver, diarrhæa, or dysentery. If the attack be upon the breast, a burning, putrid, or other Fever, with inflammation of the lungs or pleura. If on the limbs, one with inflammation and pain in them. For to call such a Disorder, an acute rheumatism is utterly wrong and untrue; since no febrile Disorder arises, that does not follow after, or partake of the nature of the reigning Fever governed by the then existing constitution; which ought therefore, to prevent error; to be
care-

tenacious, morbid matter, according to the power resident in each habit, and as each was affected and disposed, as is evident enough from this description. Even a continual Fever in the strongest having a daily time of relaxation; Quotidian intermittents no more; Tertians only one of longer continuance.

With the extraordinary discolorations and increase of violence and symptoms abovementioned, burning Fevers still continued to be attended with rheumatic pains†, pleuretic and

carefully sought after and discovered? And indeed to act otherwise is much below the dignity of Physic. For if a rheumatic Fever, as it is improperly called, rises, or a violent Fever of any kind does not go well off, and by a good crisis, the Patient is often subject to relapses, and the coming on of all the Disorders, and symptoms above enumerated—to violent attacks on the brain, attended with phrenitis, delirium, or coma—to violent inflammatory obstructions of the bowels, diarrhæas, and dysenteries—and also, if the morbid and oppressive humours be thrown upon the breast, to most dangerous inflammations and oppressions there; each of them proving often fatal in the latter end of Fevers, as well as their beginnings.

† These Disorders sometimes came on by accident, not however without a predisposition to them.—A young Gentleman, 7 or 8 years old, who had been inoculated some years before, according to the Suttonian method, upon receiving a blow upon the hip joint by a fall, was attacked with a violent pain there, attended with a Fever, and so much discoloration of the part, that through fear of a mortification coming on, the bark was imprudently given. He recovered, but not without an impostumation being formed in or near the joint itself, and also boils on other parts of the body.—The bark which, as I have said, was at first improperly given, was, under a notion of its alterative powers, or with a view of stopping the large discharge from the hip, as injudiciously continued, at least at times, for near two years. From the use of which, however, long before this period, even the nervous fluid itself, by undue confinement and retention of the foul humours, was become so acrid and inseparable by insensible perspiration, that violent cramps came on,

and peripneumonic Disorders, and inflammation of the bow-

for which he was obliged to take opiates. And the foul matter that existed in the habit, even before the accident, and was the grand radical cause of all the mischief, was now so compacted together, become so tenacious, and endued with so acrid and highly pestilential a nature, and so fixed in the body, that when fresh boils broke out, as was pretty often the case, if they were seated upon the bones, they were attended with an external caries and exfoliation.—Under these dreadful circumstances, the discharge still continuing, and the hip joint being greatly affected, and I believe out of place, he was on account of the contraction of the muscles, and a false notion that the use of Bath waters, by pumping upon it, would contribute to heal the sore, sent thither, which highly disagreed with him, and reduced him to a mere skeleton. So that after his return from bathing in the sea, where he was afterwards sent, he was obliged to be put upon a milk diet; which with the help of a vegetable, aperient, and temperate method, the use of emollient applications, and indeed an absolutely different mode of treatment in general, soon reduced him into a better condition; he gaining flesh, and recovering a much better state of health, though the relaxation and luxation of the joint, and contracted state of the limb remained. He survived thus, till the year 1793, when he at length, died in the Summer of a Fever.

Having thus related this remarkable pestilential case, attended with a caries of the bones, that arose from accident, I will now give one more extraordinary that came on naturally, under the same pestilential constitution. About 6 or 7 year ago, a Boy 6 years old, happening to heat himself very much, by motion in the sun, in a very hot day, the hereditary scorbutic matter in him was thereby changed into so acrid, and even corrosive a state, as to being on a chronic pestilence equal to what happens in *Lues venerea*: it being attended with a caries of the bones, of the head, spine, and feet, and a consumption that gradually destroyed him. A Man also, in the decline of life, subject to a chronic rheumatism, had withal a peculiar kind of ulcer in the throat imitative of such as arise from venereal taints; though from the known good character both of him and his wife, for he was a married man, his exemplary prudence and sobriety, it could not reasonably be imputed to such a cause, nor from any consequences that attended it.

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els*; there were also some instances of the scarlet Fever||. Many likewise were affected with violent pains in the face and teeth: these and even persons who had dropfical swellings in the body and legs, having sensations that the parts affected were enlarged to an enormous size, the oppression and distention arising from the vitiated state of the humours was so extraordinary. There were also some peculiar cases of chronic rheumatism, attended with great inaction, and a kind of dormant state of the tenacious matter§; and some remark-

* A young Woman between 20 and 30, after being attacked with a burning Fever with pleurisy, which left a remarkable drowsiness behind it, upon coming down stairs into the air, was seized about a month after, with an inflammation in the bowels that carried her off.—Here had evidently been no crisis after the former attack.

|| A young Person after having the scarlet Fever, in which he took bark, had a descent of the pestilential humours into one leg, to cure which, he was advised to lay it up and get into the air. Upon so doing, a black spot appeared upon the head, and another on the face; the Disorder, instead of high rarefaction and violent motion, as at first, ending in pestilential stagnation and putrefaction, almost equal to what happens in the plague itself. From which we are to learn, that there is no safety to be had in febrile Disorders, till a crisis is obtained; nor even after apparent recovery, till the habit is at least a little cleared by proper methods. And on this peculiar occasion, let me recommend to the study of the Faculty in general, the following most remarkable words of Hippocrates, in the 2nd Book of his Epidemics, which ought to be wrote in letters of gold. *Eorum quæ decernere nata sunt, si quæ judicatoria non fiunt, difficilem solutionem, si quæ vero contraria significant, malum indicant. Non ideo tantum quod recurrunt, verum etiam quod priscam naturam exuunt, et in contraria vergunt, non secus ac ea mala quæ in contraria transeunt.*

§ A middle aged Man of a corpulent habit, was afflicted with a sluggish Disorder of the rheumatic kind in his bowels, thighs, and legs, for some months. And though all the active methods that could be thought of, to put the oppressive tenacious humours in motion and discharge them, were used, he was in great
13
danger

remarkably sudden deaths, arising from the same great disposition of it to stagnation and putridity†.

In the irregularly hot and cold weather in the beginning of Summer, ophthalmies became epidemical; and rheumatic Disorders both chronic and acute*. And through it, Autumn, and Winter, the chincough prevailed in a very bad manner; hanging on long, and being sometimes attended with spitting of blood; there were also several instances of the Dysentery. And, in the latter end of this season, inflammations of the bowels were common; and likewise

danger of a total stagnation taking place in the former, they were of so indolent and sily a nature.

† A Man in the decline of life, subject to the Gout, but which by too low a way of living, among other causes, had not appeared in any effort or fit for some time, was now taken with a burning Fever that soon proved fatal. And a middle aged Woman, who had broke her leg 12 days before, and was in a promising way for recovery, but had imprudently neglected to lose some blood, to which she had been advised, died suddenly and unexpectedly of an universal putrefaction of the whole mass of blood, with gangrene of the limb, that without any pain, or undue constriction by bandage, came on, after this short confinement only, and the want of usual air and exercise.

* A married Lady of a scorbutic habit, after exposing herself daily, for some time, too much to the inclemency of the weather, began to complain of a pain, in one foot: and afterwards was attacked with a more violent one in one leg, and a burning Fever; in the course of which the head became affected, she grew delirious, and it proved fatal. But though there was a remarkable increase of Fever every night, as is the case, in general, in those of the present kind, and such other symptoms as are attendant on violent ones; yet as a contraction of the muscles of one or both eyes, came on in the progress of the case, and when the head became affected, a matter taken notice of by Hippocrates, and by no means uncommon in the fatal terminations of Fevers, it was from hence taken for an Hydrocephalus, with no other symptom or appearance to justify such an opinion, or warrant the adopting so strange a notion.

fluxes

fluxes to, and from the liver, in pure bilious discharges with much wind. There were also many Jaundices in burning Fevers; and likewise chronic cases of that kind, attended with a slow one, and great tenacity, acrimony, and impurity of humours, and great itchings on the skin,—I have said already that the present pestilential constitution was a general one. And as the intemperature of all kinds, with the Phœnomena attending, were extraordinary in various parts of Europe, so were the pestilential Diseases out of measure violent, malignant, and putrid, in some instances, even beyond any former examples.

In

§ About this time an account came, from an ingenious Surgeon at Florence, to his friend at Paris, of an extraordinary case that happened under his inspection, which to most persons will appear incredible.—An Ecclesiastick who had heated himself greatly in doing matters for his acquaintance at a Fair, was attacked next Evening, as he was alone in his chamber at his prayers. The people below hearing some noise, went up; and on entering the room, where he lay stretched on the floor, observed a kind of lambent flame upon him, which abated and went off as they approached. When the Surgeon visited him, he complained of a sensation in the right arm, like what arises from the stroke of a stick, and said that a ball of fire had settled on his shirt; all of which was instantly reduced to ashes, except the wrist bands. An Handkerchief, which by his desire, when he came in, was put between his shoulders, was not injured. His drawers likewise were untouched: but his Coat was consumed, though not an hair of his head was affected. The next Morning the teguments were entirely detached from the flesh of the right arm. Those likewise of the shoulder and thigh were much injured: and a mortification had seized the arm. And the third visit, all the rest were in the same state. He complained of violent thirst, and was agitated with terrible convulsions; discharged upwards and downwards very putrid bilious matter; had a *burning Fever with delirium*, (this ingenious Gentleman's own expression) and on the 4th day, after two hours sleep a lethargy or coma, and expired. The Writer observes that he saw with astonishment and horror, worms issuing from every part of the body, and even crawling out of bed; that the putrefaction was so great, that the exhalations from his body consi-

In the beginning of Autumn and afterwards, terrible burning Fevers, that were often fatal, raged in several places||, attended with great langour; the oppressive vapour arising in the body gaining no discharge by the skin. Persons affected with them were much relieved by the action and discharges

derably affected the circum-ambient air; and that the nails began to detach from the fingers. That there was no reason however to apprehend the effects of external fire; for the wick in the lamp was turned to an ashy substance, and almost dry. He also takes notice that the Philosopher Maffei had a notion, that a flash of fire might be kindled in the body which might inevitably occasion its destruction: and that, if he had been now alive, this case would have confirmed him in it.—So much for this ingenious Gentleman's account and observations; which I have not the least doubt are very true.

Every one who knows any thing of Physic must know that a most violent pestilential fever may be brought on by the heat arising from excessive exercise. To what a degree only then it shall arise in a constitution of the air so uncommonly intemperate as the present; or with what effects, on peculiar occasions, and under particular circumstances, they shall be attended, is in the power, I am sure, of no Physician or Philosopher to determine. Things that have been and those we have seen and are acquainted with, we are too apt to make the rule of those that shall be, and the measure of truth; a subject incomprehensible, and in many cases infinitely beyond the reach of our weak faculties.—Hippocrates in his concise and expressive manner often calls a Fever πυρ, ignis. In the case before us we have an instance, not only of a violent burning Fever with all its virulent symptoms, but attended with such a degree of heat, on its rise, as even to raise an electric fire in the body; and with so great putrefaction, as to produce that dreadful disease, and corruptible state of the body, occasioning worms to be bred in it before death, of which Herod and Antiochus perished.

|| At this time a Man near Cheltenham died of a violent *burning Fever with delirium*, and attended with such heat and putrefaction as to separate the nails. Another appears to have been saved in a good measure, in a case of this sort, through an hurt in his leg he received before he was taken with it, which broke out again and discharged plentifully in the decline of the Disorder.

About

charges attending pretty brisk vomits, and the perspiration succeeding their use; and also by gentle aperients and blisters. In many of them there were impostumations on their decline; these were also common where there was no Fever.—In the middle of this season the Influenza returned, and colds and coughs were epidemical, many of them hanging on long and proving consumptive. And in the latter end of it, there were some instances, as in the Spring, of sudden death.

In the Winter, as in Autumn, there were bad burning Fevers; one of which I was informed was accompanied with phrenetic symptoms, as others were with inflammation of the bowels. The scarlet Fever†, a bad sort of chin-cough, and the small Pox raging every where, and particu-

About the same time the young Man subject to inflammations of the bowels, the preceeding part of whose case is related in my Treatise on Cheltenham Water, recovered also from a burning Fever, but took Bark in its decline too soon. In consequence of which, next Spring he became subject to an Ague, which hung on him some time. However following then the advice I gave him of letting it take its course, without any medical interference, this compleatly restored him to health, which he enjoyed for many years.—In fact the efforts that succeed the use of Cheltenham Water, in various seasons and at different periods, may be violent in some instances, but are never raised in the constitution to any great degree, except when it is necessary to the saving the Patient; and, as I have observed, are almost always salutary, at least under good management; which is more than can be said of some other powerful mineral waters, of which I shall soon have occasion to take further notice. And I hope by this time, its wonderfully active powers, which, in some oppressed and peculiar habits require a considerable share of judgment in the use of it to direct properly, though so safe in general, are fully believed in and confirmed.

† Under a false notion of mere putridity, instead of a right conception and due knowledge of the nature of pestilence, Port Wine was used freely in these highly inflammatory Disorders, and where the throat was affected, that fumigated with the vapour of it; happily enough in one case, an impostumation formed there and saved the Patient,

larly

larly in a neighbouring city; and the latter being said to be frequently complicated in an extraordinary manner with the former, in its beginning, and flushings similar to it appearing on the skin before the eruption of the small Pox; and both of them being attendant on the increased pestilential state of the rising year.--In London there was a peculiar kind of Influenza or remittent Fever, as in 1782, attended with defluxions on the lungs of 7 or 8 days continuance. The Dysentery likewise appeared, and a general unhealthfulness every where prevailed.

The year 1786 was peculiarly fatal to parturient Women, through large floodings that came on immediately after delivery. Several Women also, in this and some preceeding years, were at their full time delivered of dead children. And though sea bathing, a mode of treatment not equal to nor corrective of the cause, was used in several cases to prevent this, I never heard it was attended with success in more than one*.

Every Man endued with a proper degree of penetration, and capable of observation, must be sensible before this, that great intemperature of the Air, both in respect of heat and cold, irregularity of seasons, a too calm, close and dry, or greatly disturbed state of it, with vast falls of rain, snow, and hail, frequently at unseasonable times of the year, with a confused mixture of all kinds of bad weather, under a foul atmosphere, and state of it perpetually changing, with some peculiarities belonging to each year, were the causes of the rise, continuance, and increase of the present pestilential constitution.

* There was an instance of a scrophulous Disorder that fell in to one angle of a young Gentlewoman who had been inoculated, and came on after an hurt. And though by topical applications it was removed, and the constitution afterwards assisted by the use of sea water and bathing, yet from her unhealthful, pallid, and yellow look, it was but too plain that the Disease was by no means eradicated, by the discharge of the foul humours from the habit.

CHAPTER X.

Of the Continuance and Increase of the Pestilential Constitution, in 1787.

IN the beginning of Spring, and indeed in all the preceding parts of the year, the wind was very much in the south, or southward, and often very high: large quantities of rain coming out of this point, and the weather, with some variations as usual, being in general very warm for the time of the year. And what cold weather there was, on the coming on of this season, came, in a peculiar manner, more out of the southern than northern points; undoubtedly from an uncommonly cold, vapourish state of the Air in those quarters*. However there was some very cold, raw, frosty, and piercing, in the middle of it, with falls of snow, that yet did not lye, out of the eastern and northern; this being succeeded by some very warm and close. Warm and cold weather thus going on alternately, and it being, after the middle of this season, very intemperate in all respects, changeable and uncertain; and towards the end of it very tempestuous and stormy with much loud thunder, great power of heat, and closeness of the Air, and large quantities of rain; with a mixture, at times, of a foul, hazy Air out of the east, and some intervals of a very cold

* The weather this year was very irregular abroad. For by accounts from Stockholm, the Winter there was so warm, that the Thermometer never sunk lower, though in so cold a northern region, than 15 below null. While on the contrary, it was so cold at Constantinople, as to stop the plague for several days.

one out of other quarters ; warmth and moisture predominating however in the former part of this year, as cold and moisture did in the last.

The Summer likewise was very variable ; for though it began with hot weather, it soon grew exceeding cold. This season consisting thus of very hot weather, with storms and gentle showers at times, and sometimes a clearer, at others a foul air, or of exceeding cold, with storms of rain, mixed with hail or snow. The state of the air going on thus hot or cold, with intervals of very tempestuous storms, and large quantities of rain, to the middle of it ; but being on the whole, uncommonly cold for the time of the year, though the former part of it had been warm*. After this it continued stormy with large quantities of rain, chiefly out of the southern and western points ; succeeded by very warm, close, and moist weather. There being in the latter end of it a stagnant state of the air, followed by more storms and falls of rain : the same very warm, close, gloomy, foggy, and calm weather constantly recurring after it, with an obscure sky. But, notwithstanding this great

§ The weather was very severe at this time, and there were dreadful hailstorms in some parts of England and France. And it was so cold in Scotland as to freeze Ice near an inch thick.

* This Summer during a storm at Birmingham, there was a clap of thunder that began with one single report, like that of a cannon, so loud that it shook houses at ten miles distance almost like an earthquake, and the windows of others at fifteen. It was preceded by a flash of such vivid lightning, that it shone with great brightness on the floor, and gave light even through the key holes of doors, though it happened at mid-day ; the reflection being seen vibrating reflection on reflection several times. What is still more— it, that is the latter, instantly electrified vast numbers of persons ; turning round some, and striking down others in the streets. And yet though the lightning itself fell on an house, and passed between two persons who sat at work, it took not away the life of a single person. Though it gave several of those who were electrified in the streets, acute pains in the shoulders that lasted for several days.

warmth,

warmth, this season, as I have already intimated, was as remarkable for cold as for heat and closeness; the former giving a check to it, though the Spring was so forward.

In the beginning of Autumn the weather was also very cold and gloomy: this being soon succeeded again by high winds, and large quantities of rain, that sometimes in large storms, poured down, as it were; at others descended in gentle showers, with intervals of warm, calm, close, and gloomy weather, as in the preceeding seasons. And after this it still continued thus, at times, warm and foggy; at others cold, and raw, and then tempestuous again with much rain out of the south. This being followed again by the abovementioned tolerably warm, and by cold weather, at times, with a very moist, and unwholesome atmosphere, a stagnant and close Air. And in the latter part of it, after some cold and raw weather out of the south, vast quantities of rain continued to come from thence, and out of the west, with, or succeeded, as before, by tempestuous winds out of both. A cold and raw Air returning after this; and then one much more so out of the east with sharp frosts: the Air, at other times, being very raw and foul, with an obscure sky, more rain descending mixed with snow out of the west, and there being hoary frosts, with a foggy Air out of the south; the latter end of this season, and the beginning of next being very cold and severe.

As the weather had been remarkably moist and foul through the preceeding part of the year in general, so was it in the beginning of Winter, and indeed through it, beyond measure gloomy, moist, and raw, or close, with a thick, foggy, and stagnant Air out of the south, east, and north, especially the former. And vast quantities of rain came out of both that and the north, followed by very variable weather, and sudden changes into these two opposite and other points. But being, exclusive of a few sharp frost on nights, and cold weather for a few days at first, on the whole unseasonably warm and close for the time of the year. However before the middle of it, there was some
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very cold weather with cutting winds out of the north east, and great falls of snow*, soon dissolving, and followed by a very cold, raw, foul, damp, and stagnant state of the Air, out of that and the south, with hoar frosts, soon succeeded again by rain. In fact so unseasonable was the weather, in this naturally colder part of this season, or middle of winter, that there was sometimes an uncommon warmth and closeness of Air in it, and no cold weather of more than 2 or 3 days continuance even then. But it continuing, for the most part, foul, foggy, moist, and unnaturally warm, between the sudden returns of cold and raw, with showers at times, or rain mixed with hail, or falls of snow, out of the north east, with a still fouler state of the atmosphere, and tempestuous winds that attended this unfriendly state of it. And the latter end of winter consisted chiefly of foul, foggy, warm weather, with gentle showers out of the south, and tempestuous western winds with rain, or of cold, raw, and gloomy, out of the east, with now and then a fine day. There being a return of frosty weather with some snow, and likewise immense quantities of rain, out of the south again, before the end of it. Followed as usual by the same gloomy, and foggy state of it, stagnant Air, and warm or cold atmosphere, that presided through the whole. Indeed nothing appears to have been equal to the foul mixture of weather in it, during the present pestilential constitution; not even that of the Winter of 1779, 1780, or 1781. And I have been more particular in describing it, because it was the conclusion of an year, that appeared to complicate and combine together Diseases in an uncommon manner, in the former part of it; and was also the forerunner of a most extraordinary intemperature, consisting of such an extreme power of heat, cold, and drought, as so increased the violence, and consequent symptoms of burning Fevers, the succeeding year, as even to alter in some respects, their very nature, and bring in numerous instances of true Phrenitis.

I have already observed that the scarlet Fever and small Pox raged in a neighbouring city, in the very beginning of

*. About this time were vast falls of snow in many parts of England.

the year : appearing often to be complicated together in an extraordinary manner, in the beginning of the latter, and being very fatal. And this was also said to be the case in the warm, foul weather, in the latter end of Winter, and beginning of Spring, with regard to an eruptive Fever and the small Pox, in another ; which, with the aid of burning Fevers, brought on a great mortality. The latter growing so bad in one Goal, that the Goaler and several persons of the faculty who attended were infected with them. Burning Fevers were also so fatal in other places, that there were instances where 4 or 5 of a family fell victims to it. Many cases, as in those described by Hippocrates, in *Stat. Pest.* were attended with a comatose disposition on or soon after the seizure†; while others were accompanied with a phrenetic delirium†. Children in these fevers had constantly a mourning kind of voice* ; and one in particular, an inflammatory disposition of the bowels, returning regularly with the paroxysm of the Fever every night. And fluxes also by the bowels were epidemical with them†.

† A parturient Woman, through a cold contracted by lying constantly in a low damp room for many months, had a stroke of a palsy towards the end of her pregnancy, and was, both before and after delivery, in a very reduced state. Upon drying up her milk on this account, soon after she was brought to bed, with the recession also of a tumor in one breast, either naturally or by repulsion, she grew comatose : and though somewhat relieved by a blister on the head, gradually sunk under the Disorder, with this symptom attending her to the last. In fact, nothing, not even the lowest state of weakness, will warrant practice resistant of natural appointments, and efforts. An old Man likewise, attacked with a suppression of urine, was also comatose. Which symptom will be probably attributed by some to the suppression merely ; but in fact arose from siziness of blood, and oppression of the vessels, the grand cause of the whole.

* A child was so afflicted and reduced by one of them as to have spasms, and a tendency to an Opisthotonos :

† One of these Diarrhæas came on in a quartan Ague, attended with a pain in the rectum and tenesmus, with very small discharges from the bowels.

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On the coming on of the cold, intemperate, and variable weather before; and after the middle of Spring, oppressions and inflammations of the lungs became epidemical, especially among children, to whom they were very fatal§. And those of the latter, who had the small Pox naturally or by inoculation; sometimes died of a concomitant Fever attended with pulmonic complaints in the former, or an attack of them, in the disease by inoculation, at the end of the Disorder||. The bowels were also greatly affected, not only with Diarrhæas as above-mentioned, but also with severe inflammations and great obstructions, accompanied sometimes with a suppression of urine. And from the remarkable severity of and changes in the Air, many had rheumatism at the stomach, and vomited up humours so acrid and sharp, as to be almost corrosive. There were also other very peculiar Disorders of the stomach, attended with a sense of coldness, and even tendency, at the same time, to a sudden universal stagnation.

Agues and intermittent Fevers, as usual, were very epidemical in the cold weather both of the Spring and Summer; and several Children became subject to Dropsies both of the ascites|| and anasarca kind. There were likewise many instances of sudden death, even among middle aged and younger Persons.

In the Summer burning Fevers and the fore throat were

§ This Disorder was akin to the Influenza of 1782; and a kind of return of it, though after a different mode.

|| A Child that was inoculated 3 years ago, had an humour that fell into its leg next Winter. However it was so far from being duly relieved by this effort of nature, that, from the quantity of gross matter still retained in the vessels, and oppressing the constitution, it was now attacked with a Fever attended with great difficulty of breathing, and died. As did likewise another under the same circumstances, that was inoculated at the same time, either during the Disorder, or soon after apparent recovery from the small Pox by this method.

In the Summer burning Fevers and the sore Throat were very prevalent in a neighbouring Town§, and there was with us, a bad kind of small Pox†.

In the beginning of Autumn burning Fevers were frequently attended with discolorations externally, and sometimes gangrenes in the legs, &c‡. There were also some cases of this sort without Fevers as last year. In this season and in Winter bad Diseases of various kinds became very general; burning Fevers growing very fatal||, and being often attended, as well as very bad eruptive ones imitative of the scarlet Fever, with terrible fore Throats§§; a bad kind

§ A Man who heated himself by violent exercise died now of a burning Fever, brought on, and much increased by it, and accompanied with a pleurisy ending in a gangrene.

† A Girl who had the purples in the beginning of the small Pox, but who was then relieved from this putrefactive tendency at first, after loading herself by eating too much when the Disorder was going off, was attacked with a secondary Fever, and violent rheumatic pains, a quick pulse, and great debility: the Disorder remitting daily, as all the present Fevers do, and being in all respects apparently of the same kind. Blistering, attenuants, and aperients; and at length a little Calomel cured her.

‡ An old Man died now of a burning Fever thus affected.— And a child attacked with one, attended in the beginning with convulsions, had great discolorations on one side of the body, but it recovered.

|| Burning Fevers were said to be very bad in the county of Suffolk, Suffex, and in Buckingham, Worcester, a town between that and Birmingham, and other places: and so fatal in the latter, that it was reported by a Gentleman of veracity, that hardly a person recovered: an uncommon instance of mortality, if no confining and hot methods were used.

§§ It was said four persons died in one house in Birmingham: and that the sore Throat, where it attended these Fevers, became fatal sometimes in two days. At this time Fevers were said to be general through all Europe.

of small Pox being epidemical with them. Breakings out however in the latter end of Fevers that were not of the eruptive kind, saved many: while others died for want of crisis, either in the Disorder, or not long after*. At the same time many were subject to inflammations in the eyes and eyelids, and eruptions and foulnesses on the skin. Pulmonary impostumes and consumptions§ were also very common; the pestilential matter beginning now to have an internal direction, and to form abscesses in the internal parts instead of the outward; a person having one in the stomach†. There were also as in the Spring, some instances of sudden death.

In

* One of these burning Fevers without crisis left an asthma behind it, that was suddenly fatal to a Woman in the decline of life inclined to grow fat. She had had an attack of the latter about a fortnight before, which was temporarily relieved by losing some blood. The fatal return of it happened in the beginning of the night, in the cold weather in the latter end of Autumn.

§ A young Man 25 years of age, who had an intermittent in London, attended 7 days after the attack with complaints on the lungs, upon taking large doses of bark after these came on, under a notion of curing the intermittent, was seized with a severe pain in one side. And in the course of a few weeks, the lungs grew ulcerated, and he was in a confirmed *Tabes*. A young Woman also, of a weakly and declining habit, under the same circumstances at first, upon taking bark thus with a cough and complaints on the lungs upon her, and restraining also a flux by the bowels, which afterwards came on, soon became ulcerated in the lungs, and in the last stage of a *Pthisis* — A Person also who had a *Diabetes*, which is but another kind of consumption arising from the same scorbutic, tenacious and acrid impurity, upon its going off after the use of astringent medicines, died soon of *Tabes pulmonalis*.

† This case happened to a Gentlewoman in the first months of Pregnancy. She had not been able to keep any thing on her stomach some time, and was, at length, in so reduced a state, that her life was despaired of. The case ended in an impostu-
mation

In the terrible foul weather of Winter, burning Fevers, and the pestilential sore Throat, were epidemical every where: the former being attended with deafness, and highly infectious and putrid, and both of them very fatal||. There were also said to be instances of the spotted Fever; a Disorder sometimes attendant on the Plague itself, if we are to believe the bills of mortality. Many of the burning Fevers were attended with great oppression on the liver and stomach, and a tense swelling in the region where they lye. And there frequently were large discharges of phlegm and bile, in the attack of Fevers, from the accumulation of foul humours in both, and the determination of more in the blood internally to those viscera for discharge. They were also often accompanied with the Jaundice.

mation in the stomach, which upon breaking saved her. — Thus the pestilential matter, which in the earlier part of this pestilential constitution, used generally to be propelled to the surface of the body, in eruptions on the skin, or discharges by external abscesses, began now to attain so tenacious, inseparable and untoward a nature, as to be incapable of being determined to the outward parts of the body. Fixing therefore internally, and the same process going on there for its dissolution and discharge, especially in some weak and bad habits, that were less able to attenuate it enough for its propulsion outwards, as happens in external impostumations: and this was more particularly the case in the constitution of the ensuing year.

|| Five or six persons were said to be buried out of one house at Stourbridge, and 3 died in one near us: and the mortality was reported to be so great at Birmingham that 100 were buried in a week.

CHAPTER XI.

Of the Continuance and Increase of the Pestilential Constitution, in 1788.

IN the begining of Spring there was a return of cold, as intemperate and severe as in Winter; as hath been the case for some years past. And this part of it consisted chiefly of very sharp frosts out of the northern and western points, with some snow, sleet, and hail, as usual, or of cold, raw winds, and obscure and gloomy weather, out of the south and south east, and sometimes settled rain; with some intervals of warmer, and now and then gentle showers; this former part of, and indeed all this season, being on the whole, rather dry than otherwise.—Before the middle of it, there were tempestuous winds as usual, out of the west and south west, and very cold ones out of the north: the same severe weather going on, with intervals of some that was warm, close, and gloomy, till after the middle of it. When, though there were often sharp frosts on nights, and sometimes still cold weather in the day, heat increased to a considerable degree; high winds returning again, at times, with rains, and sometimes gentle showers, out of the western points —In the latter end of this season the intemperature, both in regard of heat and cold increased: it being sometimes exceedingly hot, while at others

§ The weather before the middle of Spring was so hot at Bath, as to drive the company away to other mineral springs; and there was thunder with us before the middle of April. But though it was, at times, thus warm in England, both now and in the Winter, it was in Sweden, and Denmark, intensely cold.

so cold a wind with a foul, raw Air, blew out of the north east, as occasioned such sudden changes in the atmosphere, that the Thermometer varied 29 degrees in the compass of a day. There were also high winds out of other points, with rain, and a very raw Air, out of the south: and before the end of Spring, such hot weather, as to raise the Thermometer up to 78, and 80, though an high wind blew out of the south at the same time; the very wind itself being warm. Thus this season consisted chiefly of cold and warm weather, in the first part of it, with a great predominance of the former; and of such sudden returns of great heat and cold, in the latter part of it, as to make the Thermometer vary, at the same time of the day, once 36 degrees; the weather after the great heat, being for some days, as remarkably cool.

This most remarkable change from hot to cold weather, happened about the beginning of Summer; when there were such high, cold, drying winds out of the north east, as I never knew before at this time of the year†. And indeed there were frequent returns of an uncommonly harsh Air through the whole of this season, though it was, on the whole, so remarkably hot and sultry*—The abovementioned cold weather was soon succeeded by some so intemperately hot, as to keep the Thermometer up at 79 even

† At Chester, and several other places in Cheshire there was about this time, such a storm of hail, with stones of an enormous size, accompanied with such dreadful thunder, as was hardly ever known in England. Cattle, Poultry, and even small Birds, were said to be so terrified by it, that the former ran, and the fowls fled screaming over the fields and yards, several dropping that were supposed to be killed by the lightning; and even the latter attempting to take refuge in the houses, by dashing themselves against the windows, and breaking the panes. There never was so sudden and great a change in the air, as at this time, in the northern counties. For after six days unusual heat, and even a pestilential one for the three latter, it became on a sudden remarkably cool; and next morning the hills in Cumberland, Westmoreland, and Lancashire, were seen covered with snow in the beginning of June; the weather being as severe as in February.

* The weather in the beginning of June, before the cold came, was so hot on nights in London, as to be hardly tolerable: Farenheit's Thermometer being up at 80 in the evening, and on nights. And when the cold weather came, it sunk on a sudden to 44 as with us.

till six in the evening; and raise it next day to 80°, though the wind still continued in the north east.—In this former part of the Summer however there was some rain, and several thunderstorms in the hot, sultry weather†: but after these the wind generally recurred to the north east. And besides the severe cold out of that quarter, there were sometimes such sharp, cutting winds out of the north west, as I never knew at this season. But though both the Spring and Summer were on the whole, very dry, there were at times, as I have said, gentle showers, and sometimes settled rain out of the south west, with tempestuous winds afterwards, and an uncommonly close, sultry air, succeeded by some moist, close, uncomfortable weather, and then the usual return of the cold wind out of the north east. In the latter end of this season, the weather was so hot, that the Thermometer was up again at 79, even at 5 in the afternoon; the air being sometimes clear, calm, and stagnant, at others very cold, raw, and gloomy, with a cold wind out of the north, though there was a closeness observable in it at the same time. And thus it went on, with foul weather at one time, and very warm and close, even when there was a brisk wind out of the south west, at others: this season concluding with a great deal of settled rain, and many heavy thunderstorms, and a mixture of cold and gloomy, and close and sultry weather.

The beginning of Autumn was exceeding warm, and sometimes so close that people could hardly bear it; the Thermometer rising to 74, even at this time of the year. The wind being in the South, but the Air in general so calm, and such a dead stagnation in it, that little or none was stirring for several days; and the weather, though at

§ In Hungary and the Bannat of Tamefwaer, the heat was said to be excessive.

† Before the end of Summer there were amazing storms of rain in London, Bath, and Canterbury: the latter being of so uncommon a kind, as to be like what is called a water-spout. And there were such hailstorms, with large pieces of Ice, at Paris, as were never heard of; and great quantities of rain fell between Cheltenham and Windsor.

times gloomy and obscure, with now and then a gentle shower, in a great measure in a settled state for a fortnight. But then, after 2 or 3 days of a cooler state of the Air out of the north, there was a good deal of rain out of the south and south-east, and storms from the north-west, succeeded by more gloomy weather out of the south, a great deal more rain, and also tempestuous winds out of the west and north, with intervals of warm, and sometimes a very close, cloudy and gloomy state of the Atmosphere, and, at other times, a very cool one, with sharp frosts on nights, before the middle of this season.—About this time the old north-east wind, which had reigned through the two former seasons began to return, rise and blow a very cold, raw air; the sky being at other times overcast, the weather calm, and the wind still in the same point, or the east or north. There were some intervals however of finer and warmer weather: but towards the end of Autumn, tempestuous winds with settled rain from the west, followed by gloomy, foggy, moist, and uncommonly warm weather from thence, and the north-west. It growing colder in the latter end of it, with sharp frosts, and a severe Air from the north-east, or a foggy foul one from the west, or a gloomy and moist one from the south, with some intervals however of finer weather.

As to the Winter, it was extremely severe to the middle of it: the air being very cold and dry†, and the wind mostly in the north-east, especially in the beginning of it*. There were however also cutting winds, of the tempestuous kind, out of the east and north; Farenheit's Thermometer being down at 8, and in another situation, 5 above null. And though the Air was in general so sharp, it was often

† Notwithstanding however the rain that fell at times in this violent and sudden manner, there had been so great drought on the whole, this year, and in particular, so little rain in the Autumn, that at this time the fens in Lincolnshire were almost dried up, and the springs and rivers very low with us.

* At this time the weather, by accounts received, was extremely severe in Denmark, the Bannat of Tameswaer, and at Paris; and also remarkably tempestuous in the north of Europe.

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withal very raw, gloomy, calm and stagnant, and usually foul. There being foul fogs blown with the wind out of the south, and hoary frosts, and sometimes also tempestuous winds out of that quarter, and the fourth. The weather was also so variable in the beginning of January, that it snowed, thawed, rained, and froze again all in the space of 12 hours, as in 1780. There was likewise, at times, some hail, and indeed a mixture of all kinds of bad weather; but the falls of snow were very great indeed||. About the middle of this season the wind turned into the south, and south west, grew tempestuous, and a thaw came on, succeeded by a great deal of rain; frost and snow however returning, and sometimes raw weather, soon followed again by rain. For there began now to be large quantities, and sometimes of very heavy rain, as well as tempestuous winds out of the south, south west, and west, with intervals sometimes of weather warm for the time of the year, at others raw, but in general very gloomy, foggy, moist, and damp.—The latter end of Winter was out of measure tempestuous, with still greater quantities of rain out of the western and southern points, snow out of the north, east, and north-east, with intervals of very moist, damp weather, with a stagnant Air, and withal very warm for the season; it being however, at other times, very cold, raw, gloomy, and frosty on nights, but always very foul.

I have been thus very particular in my description of the constitution of this year, as I shall be in giving its most important effects, because I wish to give others true ideas of some very extraordinary Disorders brought on or increased, by the very peculiar state of the atmosphere in it, with other causes predisposing, and the proper mode of treating them, if this can be done. And having taken upon me thus to write of the Truth in Physic, I heartily wish, for the well being of mankind in general, in respect of health, I may be more attended to upon this subject, than I have been in regard of matters of much greater importance. Let my descriptions

|| At this time there were great falls of snow in Northamptonshire, and immense ones said to be abroad at Paris, Vienna, and other places.

and sentiments, as they accord with truth, then speak for me, and as they agree with experience, and all the Phenomena in Physic.

Bad and sometimes fatal sore Throats, and defluxions of pestilential matter upon the lungs, and complaints in them often ending in consumptions, were epidemical in the Winter, Spring, and Summer†; and also fluxes of impure, tenacious humours upon the liver, and stomach, both in and out of Fevers; and attended with discharges of viscid bile and phlegm*. And with these affections of them, tumours appeared externally in the region where these viscera lye, which subsided by degrees in those who recovered. Some cases however were of so fixed a nature, and attended with such great inflammation, as to end in an impostumation in the former viscus; as had been the case in the stomach, in the singular one of the pregnant Gentlewoman last year, already noticed. And this was one among several other peculiar effects of the increased pestilential state of this.

Burning Fevers, this Spring, and in the preceeding Winter, were accompanied with deafness. And the heat in the atmosphere was at times so great, that several Children had eruptions and a flushing on the skin, or a species of scarlet Fever. While others were affected with great heat and eruptions on the face, no Fever attending.

In the Summer and Autumn, burning Fevers, often accompanied with the sore throat of the present constitution,

† A species of Influenza of the pestilential kind, akin to that of 1782, has almost constantly returned, in Spring and Autumn, since that time. And though it may seem extraordinary, yet even Fowls were now affected with it in an uncommon manner, as well as human bodies, having coughs, and many of them dying.

* These Disorders upon the liver and stomach in one case were of so fixed a nature, that after febrile efforts for some weeks without crisis, it proved chronic: the tone of both being so weakened by the impulse, and continued flux of the morbid humours that way, that towards its fatal termination, vomitings of viscid bile and phlegm often came on, attended with an universal wasting or consumption of the body.

were

were very epidemical in Birmingham. And bad burning Fevers were said also to rage in the close, ill-situated parts of Bristol. And about the middle of Summer, phrenitis began to appear in a violent manner in them. For the extreme severity of cold, and the violent intemperance of heat and drought, with the sudden changes in the atmosphere, raised diseases, not only in the former but the latter, to an high pitch of violence, according to that of Hippocrates. *Æstatis temporibus plurimum oriuntur Febres ardentes et si aliis quæque: Æstate tamen sicca contrahuntur magis et increscunt. De Morb. Vulg. Lib. II:* as was particularly the case with regard to the breaking out of the scarlet Fever and sore Throat, in 1778; and also the violent attacks upon the head in the present Fevers. The morbid humours having now a peculiar tendency to it, as they had before, and in many instances still have, especially in the beginning of burning Fevers, as I shall presently relate and describe, to the stomach and bowels.—These were the second and third remarkable effects of the violent pestilential constitution of this year. They were also often attended with bad inflammations in the bowels; and the scarlet Fever and a bad kind of small Pox were epidemical at the same time; and also a species of Influenza, as in the Spring† And some old Persons were subject to a boil akin to those of the pestilential kind, attended with violent pain, and tending very slowly to maturation, and accompanied with a slow Fever that proved fatal*; which was a fourth peculiar effect

† This was also, by accounts received, the case at Edinburgh and other places.

* An old Woman of a strong constitution, but 80 years of age, had one of these boils, situated on the outer part of one side of the lower jaw, and attended with such intense pain for several weeks, while the matter was forming, and before its discharge, for she would not have it opened, that she could get no sleep on nights. And when it did break, she was gradually exhausted and destroyed by a slow Fever that continued afterwards. The abscess proving of that sort that Hippocrates calls unsalutary or uncritical; by reason, no doubt, that it did not effectually relieve the habit of the tenacious and deadly humours that abounded in it. Here we have hereditary and acquired scorbutic matter, rendered so sily and tenacious by age, and the long continued action of the vessels upon it, joined with the powerful ill effects of a pestilential atmosphere, that the constitution was incapable of at-
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effect of this pestilential constitution, not in the Summer only but through all the year†. As to intermittents they were not very remarkable with us, and I shall not therefore take much notice of them||.

In the hot weather in the latter end of Summer and beginning of Autumn, burning Fevers began to assume a still more violent and malignant nature, and to fall with great power upon the head§. Bringing on frequently Phrensies
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tenuating and separating it from the sounder humours, or dissolving and discharging it perfectly, even by impostume, from the body. The case ending in stagnation, corruption and death, the natural tendency of such high impurity of the Juices, when joined with total inability in nature, from the weakness incident to old age, of preserving due purity in the blood, preparing a supply of new and sounder humours, carrying on the circulation with proper force, or keeping up life and motion longer.—Another old Woman exhausted by a lingering illness and decline, attended with a slow Fever, had before she died, a tumor in the groin, as hard as a stone, that never came to suppuration. And an old Gentleman of 90, died of what was called a carbuncle; but what I suppose was a kind of pestilential boil, attended with high inflammation: for a carbuncle appears to me to be an highly inflammatory tumor in the skin with pustules, or blisters, and exulceration. See Hippocrates's description in the beginning of the 2nd book of his Epidemics. I have taken notice of two cases of this pestilential boil before, that happened during the present Constitution.

† An old Man of 70 died of a burning Fever, attended with a gangrenous Erysipelas in the shoulder.

|| A Girl had an Ague 2 or 3 years, in which the morbid matter was of so intractable and inseparable a nature, that she never could perspire to any purpose, nor even throw up any gross matter from the stomach, though she often vomited, for a year. The Disorder hanging in this state thus long upon her, and at length terminating in dropsical swellings with gangrene in the legs.—Her Mother also had an ague, for the cure of which she took a great deal of Bark without any good effect; the Disorder constantly returning, and varying its shape into all forms, till it at last degenerated into a quartan. After being affected in this manner with it, in some shape or other, between 2 and 3 years, she was cured by alkaline salt, steel, and Bark duly administered.

§ A young Woman about 20, whose case was neglected in the beginning, and no methods used early to discharge part of the accumulated morbid humours by the stomach and bowels, had now a burning Fever; which, as they were not in the least disposed to pass off, after going on in a sluggish manner for several days, at length rose with great violence: the corrupt Juices being by degrees so rarefied, and ebullition of them so great, that they fell upon and affected the head with such intense heat, that, to use her own
expres-

in them, as the constitutions of several preceeding years had brought on numerous instances of Insanity without them : the bowels being often attacked in an extraordinary manner on the rise of them.

Now if this, and the reason why violent and increased *Phrenitis* often comes on in such cases, namely from the rarefaction, by the great action and heat of the subsequent Fever, of a great part of the gross, foul matter, that falling thus, in the first instance, on the bowels, for want of its evacuation, either by the efforts of nature or the help of medicine, where she first pointed out the road, was afterwards translated to the head—if, I say, these things were well attended to, it would lead Practitioners into the right method of treating them. For on the first attack of the bowels, in the very beginning of these burning Fevers^s, nature plainly shewed that there was no time to be lost ; and that she wanted immediate relief by emetics, and attenuating pointed mercurials, that act by the bowels, from a predominating load of tenacious impure humours then oppressing them, and thrown there by her efforts for the very purpose of their discharge. And when, from an accurate knowledge of the causes of Diseases, and their future consequences, and the violent symptoms and danger that must otherwise arise, due care was taken to relieve the constitution thus, in the first instance, of a great part of the quantity accumulated in, and then oppressing it, and to attenu-

expression, she said she could have borne to have a pail of cold water poured upon it. She however had no phrenitis, and was relieved chiefly by James's antimonial powder, taken in such doses as had a considerable effect by the bowels, and by the use of other aperients. Blistering was very sparingly used : nor durst I venture on the application of one to the head, in a case wherein the brain was affected with such great heat. By this prudent yet effectual management she gradually recovered, though both her Mother and a Sister died of these Fevers. But though sufficient relief was thus had by the bowels, for the restoration of apparent health, none of those particular discharges by the skin and kidneys, arising from the perfect attenuation of the tenacious humours, that one wishes to see in the latter end of cases, came on : nor in another case from which another young Woman with great difficulty recovered, though she had the best assistance given her.

§ In my Tract on the pestilential Constitution of 1778, I have taken notice of the great use of aperients in burning Fevers.

ate, in some measure, the rest, and make it more fit for secretion, it is plain enough to a man of good knowledge in physic, and indeed to common sense, that thus lessened, the remainder, when put into greater motion on the increase of the Fever, and still farther attenuated by the subsequent action of the vessels, could not raise it to so high a pitch, nor make it rise with such violence in the head, and bring on such extraordinary effects there, as must unavoidably happen, when the whole of the morbid matter was on a sudden rarefied, attenuated, and set in motion by active methods, where no previous due relief had been had by those glands, which alone were capable of straining any of it off under its original gross form; namely those of the bowels: it being utterly incapable, by reason of its tenacious and pestilential nature, of being soon discharged by the finer secretions from the body†.

Being aware then of the danger of the sudden rarefaction of a load of such matter, and attending to the indications of nature, and well knowing that giving a fair discharge to it by the bowels at first, at least in all cases where she thus called out, as it were aloud for assistance there, was of the utmost consequence, I never hesitated to give Calomel, not only in cases where the bowels were obstructed on the attack of burning Fevers, but also in others where a diarrhœa came on. And let it ever be remembered that true physic is not a form of prescription, neither a mode of practice; is not to be supported by false theories, but consists in the most accurate knowledge of the prime causes of Diseases as they exist in the body, under the influence of the air and other circumstances: the good practice of it depending on the deepest attention, the highest sagacity, and the exercise of the most sublime knowledge, and profound judgement, the human mind is capable of attaining in the present state.

The fore throat of the present constitution often attended burning Fevers, as I have observed, and sometimes im-

† This was fully exemplified in numerous cases of the Pestilential Fever at Philadelphia in America, in 1793.

postumated; but the Influenza with coughs, and Fevers with attacks of the bowels in the beginning were the most common Disorders: and it was usual in lingering cases of all sorts, as well those which had not, as those which had any preceeding pulmonic affection, to expectorate on the decline of them, the constitution not being able to get off the collected tenacious matter any other way||.

But above all burning Fevers rising often into phrenesies, were very prevalent this Autumn†: the difference between these as well as some other Diseases, and the constitutions producing them, and those of the same kind arising under the pestilential one described by Hippocrates, appearing chiefly to be, that in the latter the stroke was sudden and great; bringing in numerous Disorders in a most violent state at once, and among them carbuncles, through the more powerful heat of the climate in Greece. Whereas the present, with the Fevers and other Disorders, except the scarlet Fever and sore throat, of 1778 and 79, which stood in the place of the carbuncles under his, has come on by degrees, and both gradually increased in violence, during a course of several years, till they at length rose to the pre-

|| See my observations on the burning Fevers of 1778.

† A Man about 40 years of age of a bloated habit, and not very temperate, was attacked, in the beginning of Autumn, in the bowels, on the rise of a burning Fever. For which he very improperly took round instead of pointed mercury, with purgatives, and that too late in his Disorder: having, before he called in medical assistance, very imprudently taken so hot a medicine as Tincture of Senna, thinking it to be the colic. In the course of it a dysentery came on, for which he also improperly took opiates. For by the latter the inflammatory obstructions certainly were not lessened; and by all of them the heat, and consequent ebullition, and putrefaction of the foul humours, undoubtedly were increased, and the case precipitated. It was not long before the head became considerably affected, but not violently while the flux continued. But in a few days, when this went off, whether by the use of opiates, or from any other cause, the Fever and rarefied morbid matter rose suddenly with great violence into the brain, and brought on a raging madness: and to use an emphatical expression of Hippocrates, regarding the like fatal termination of one of these cases, *Phrenitide periit* — It is here to be noted, that no care had been here taken to unload the body, nor to open the texture of the blood, and attenuate the tenacious humours, neither by the use of proper methods before, nor by that of Calomel on the attack of the Fever.

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sent height†. Many of the burning Fevers being not only violent in their attack† and rapid in their progress§, but often also of a very lingering and obstinate nature, as under the violent pestilential constitution Hippocrates describes. He gives us relations of some that lasted 80, 100, and even 120 days||; but some of those under the present were of much continuance; owing undoubtedly, in a great measure, as far as natural causes in their ordinary progression and effects are concerned, to difference of climate and situation.

Besides Fevers with phrenies, many were attended with a comatose disposition, as in those described by Hippocrates. Some of them also were of the kind that, after relief of a transient nature, without perfect crisis, returned again for the completion of them, or proved fatal for want of them, or passed into other Disorders*, as some described by him under such a constitution. And among other violent complaints in them, some had great fluxes of

† Burning Fevers were so mortal this year in the Workhouse of a large neighbouring town, that a report prevailed that six dead bodies were deposited in one grave.

† A Girl 6 years old was so affected in a convulsion fit, on the attack of one of these burning Fevers, that she appeared to be dying.

§ An old Man complained in the evening he was not well, after which he was sick at his stomach, went to bed, grew delirious, and soon after died; probably of an universal putrefaction of the blood.

|| Hippocrates in *Statu Pestilenti*, gives us a case of an obstinate burning Fever subject to relapses, in which, after ineffectual efforts, and many impure and imperfect discharges, a Man died without crisis, on the hundred and twentieth day: and a second wherein another recovered with one, on the hundredth: but not without the help of a dysentery at last, and the discharge of the impure matter mixed with blood, by his bowels.

One extraordinary case with phrenitis, after its first violence was over, hung on 4 months: but by the use of proper methods, and in particular that of a little Calomel, went off at length with an impostumation in the nose on the coming on of warmer weather.

* A Person who had a burning Fever without crisis, had after it a double quotidian: another, upon going out too soon after the attack of a Fever, when he thought himself recovering, a Quartan.

of blood in these Fevers†: and others large evacuations of that sort, or internal hæmorrhages, without them§. Things arising from the increased ill disposition and more tenacious and corrupt nature of the foul humours, and their extraordinary confinement and rarefaction by hot and dry weather, the ill effects of severe winds out of the North-east, and sudden variations.

As to medical treatment—repeated vomits, even when Fevers were attended with the sore throat, as was often the case, were found very useful. Patients also were much relieved by medicines operating even profusely by the bowels, as well as by natural fluxes from them. But when they were affected with pain, oppression and obstruction, even though a diarrhæa came on, Calomel exhibited on the very rise of them, as I have already observed, was the most efficacious medicine||; checking the Disorder in its very origin, and lessening its consequent effects, and preventing future danger, be the morbid humours in the course of it, disposed to fall, and exert their force, where they would. All those cases ending happily, wherein it was thus early administered; and also those, wherein, before the attack, proper mineral waters had been used. But there were both now and afterwards, many bad cases differently circumstanced or treated*, that proved very obstinate and uncritical; persons

† An old Man above 90, had a large discharge of blood in his urine in one of these burning Fevers: the case, as might reasonably be expected, proved fatal.

§ A middleaged Man also had a vomiting of blood, that relieved him from a load accumulated in the vessels of the stomach and bowels, in an oppressed habit tending to dropsy.

|| Even so pestilential a Disease as the small Pox, after the due use of Calomel with purgatives, with temperance and a proper regimen, is seldom fatal even in the natural way.

* A young Woman apparently recovering from a Fever under the care of one Practitioner, was injudiciously enough advised by another to take Bark and Opiates, before any due critical discharge of the morbid matter had come on. The consequence was that she was attacked with a phrensy: and upon the application of blisters, with a gangrene of the parts where they were applied;

sons with great difficulty, even with the most judicious assistance, being able to rub through them*. And others had chronical terminations. But these difficulties were always increased, when health was attempted to be restored, in lingering cases attended with great weakness, before the body, by the efforts of nature, or by the help of medicine, was put into a proper condition for it.

Many were subject to large discharges of bile and phlegm from the stomach and bowels, soon after the use of active purging waters. The tenacious humours being sometimes so far attenuated as to have a free passage by the lat-

applied; so great was the tendency to stagnation and putrefaction, from the compaction and confinement of the before too tenacious foul humours. Under this dreadful exigency she was relieved, and the motion of the blood kept up in the smaller vessels, by the free use of Port Wine and strong Beer, which under such pressing circumstances were allowed. She would however even after this, probably with great difficulty have recovered, if she had not received still further and more effectual relief, by the exhibition of James's antimonial powder, and the attenuation and separation of the morbid matter procured by it --- A phrensy also came on, with other bad symptoms, by the injudicious use of Bark in another case; which were also relieved by the free use of Port wine. But these extraordinary means, properly enough used towards the latter end of cases, to prevent immediate stagnation, cannot be used with judgment in other burning Fevers differently circumstanced, especially in their beginnings. Nor is the success attending them a sufficient warrant for the indiscriminate use of hot methods: for an attempt of this kind would often be, and not long after actually was attended with fatal consequences.

* A Woman about 30, who was improperly treated, her strength impaired and body heated, by the use of wine in the beginning of one of these burning Fevers, was reduced in the course of a long case, to such a state of weakness, that it length put on the appearance of an hectic more than of a continual Fever. And though after the use of proper attenuants, an abscess formed on the lower part of one side of the face, yet, through the length of time the Disorder hung on her, she gradually sunk under it. So dangerous often is the use of hot cordials, and so bad the consequences of heating, and rendering still more sily, the tenacious humours; of dissipating the finer juices; and inflaming and irritating the vessels, and exhausting the strength by the use of them, especially on the rise of burning Fevers. Beginning thus, as a judicious Physician once expressed himself, regarding such preposterous treatment in the first stages of the small pox, where we should end. For cordials thus improperly given, and prematurely used, have no proper powers, or good effects, in the latter end of cases, when nature calls for the assistance of them.

ter†; at others, from more imperfect preparation, a more difficult discharge§. And before the end of Autumn, Diarrhæas became very epidemical again : whereby many escaped Fevers, and others recovered health in a tolerable easy manner. An Influenza with coughs of a very bad kind†, and sore Throats, attended with great putrefaction in the foul humours discharged, were also still prevalent. And several persons, at this time, had strong tendencies to apoplexies, and palsies, as had been the case also the preceeding year||.

In

† A Gentleman, upon using pretty violent exercise, immediately after leaving Cheltenham, was attacked with one of these violent Diarrhæas, with great benefit to his health afterwards.

§ Another Gentleman had one that came on, in a fortnight after the use of that water, attended with an incessant vomiting for more than 12 hours, and most violent spasms or cramps in the legs; such extraordinary efforts did nature then use, in discharging a load of most putrid, tenacious phlegm, and other foul humours out of the habit; which had lodged long in it, and occasioned a great and apparently dangerous decline of health for some time; and which would probably have brought on fatal consequences, if they had not been prepared thus for discharge, set in motion, and carried off. And what was the consequence? why a return of health. He did not however seem well-pleased with the mode of restoring it. But if people think to be relieved without efforts, they will often find themselves deceived: it is what is not with reason to be expected; and what, under many circumstances, cannot happen.

† A young Woman who had taken mercurials for a schirrhous swelling of the neck, commonly called a Bronchocele, and afterwards used sea bathing; through the weakness brought on by the former, and repulsion of the scorbutic matter by the latter, was taken with a pulmonary hæmorrhage, and consequent consumption, that proved fatal.

|| A Gentleman who laboured under constitutional Disorders, and a bad state of health increased by the bad influence of the present pestilential atmosphere upon intractable scorbutic humours, last Autumn drank Bath Waters. And, upon his return from thence, wrote a letter to a near relation, that he had received

In the cold weather in the beginning of Winter, Fevers were very bad indeed, infectious, and often mortal: some of them being attended with violent rheumatic pains, and very lingering and obstinate. There were also more impostumations in the liver in them. Coughs and oppressions of the lungs, and sore Throats*, were likewise very epidemic.

ceived great benefit from them, and was then in the very height of health, or somewhat to that effect. That very day or the next he died of an attack upon the head, without a single salutary effort of nature to save him: so oppressed was the system of the body with rarefied tenacious humours. These ill effects are described in Page 71 of my Treatise on Cheltenham Water: and what are we to learn from them? Why, that while Persons of foul scorbutic habits are at Bath, drinking those Waters, they by their active power, attenuate and carry off some of the tenacious humours, keeping, at the same time, the glands of the skin and kidneys, for the present relief of the constitution, open for their discharge. But having no operation by the bowels, which such habits greatly want, upon returning with their bodies not properly and effectually unloaded of the gross matter that abounds in them, and with great quantities of foul humours circulating in their vessels, and now, from the heat and action of the waters, in a rarefied state, with the want now of the powers of them to keep up the due motion, circulation and secretion of the former, a suppression of their discharge on a sudden takes place, a distension of the vessels arises, and an oppression of the brain, from the rising of predominant gross vapours, comes on, and they are suddenly cut off. And these are objections that will ever lye against the use of these Waters, in some peculiar scorbutic cases, especially where that of Cheltenham is not used as a preparative. And that I have now spoken the truth in this matter, without prejudice or prepossession, I hope will most manifestly appear.

§ A remarkable case of this kind now happened, of which the Person recovered; but not till after the formation of an abscess in the ear.

* A middle aged Man was now suddenly cut off by one of these sore throats. A Gentlewoman however in a miliary, putrid Peyer, attended with one, after the discharge of about

epidemical, and sometimes fatal. At this time there were dreadful Fevers in London fatal to many, and a very infectious one in Coventry, of which many among the poor died; most of them being delirious, and many phrenetical; and in this season many old persons dropped off †—†.

a gallon of phlegm out of the throat, as thick as whites of eggs, and the help of an impostumation there, with proper methods recovered.

† In the latter end of Winter a Man of a sedentary life, and accustomed to the free use of Ale, had a stroke of a Palsy that proved fatal.

† The plague was of so bad and violent a nature, that, according to accounts received, even the severe cold of last Winter did not put a stop to it in Constantinople. And it was said to continue all the Spring and Summer there; though not in so destructive a manner, as at Smyrna and the island of Scio. It was however said to be very fatal among the Russian Prisoners confined in the Bagnio, owing to the ignorance of their own Surgeons who inoculated for it; and also very fatal to the suite of the Indian Ambassador residing there; out of 300 Persons leaving but 70. And it not only affected the lower class of people, whose habitations are ill situated, and who were badly accommodated, but some principal ministers and officers were also said to be laid up of complaints manifesting strong symptoms of it. It also broke out again at Algiers early in the Spring, raging there, and being also very destructive at Grand Cairo. Thus we see that the pestilential constitution of this year as heretofore, reigned, in various degrees, through great part of Europe; affecting several countries and places according to difference of climate and situation. The Plague itself raging in Turkey, Barbary, and Egypt; and dreadful burning Fevers, and other violent and obstinate Disorders, in this Kingdom and many others.

CHAPTER XII.

Of the Continuance and Increase of the Pestilential Constitution, in 1789.

THE beginning of Spring was excessively severe. And though there was a great deal of rain and snow now, and also some of the former at times afterwards, yet this season was peculiarly distinguished, not only by its coldness, foulness, rawness, and harshness, but also by its dryness, and the prevalent tendency of the air to stagnation and closeness, though there were, at times, tempestuous winds in it. And though about the middle of it, the weather was so warm as to raise Fahrenheit's Thermometer up to 74, this was soon followed by excessively cold, raw weather out of the north-west.

In the beginning of Summer also some days were as cold as in March; and the whole of it was remarkable for its uncommon coolness, and also its moistness, and the great quantities of rain that fell in it, chiefly out of the southern points; for the foulness, and stagnant state of the air in it, and the frequent changes of the wind into opposite points, and the great variation of the weather. And though, towards the latter end of it, it was, at times, very hot and close, and more dry, yet there was at the same time, a cold wind out of the north-east; these two opposites of heat and cold then reigning at once, but being soon followed by large quantities of rain, and rain with hail.

In the beginning of Autumn likewise, some very cold tempestuous winds blew out of the east and north-east, and also the west; after which there were immense quantities of rain, with some intervals of finer weather. And indeed, this season was on the whole excessively wet and gloomy, with a very moist, foul, foggy, close and stagnant state of the air, and an obscure sky. However before the middle of it, there were some very cutting winds, and exceeding cold and even frosty weather, though wet on the whole, predominated in the form of rain or snow. The weather after this, towards the latter end of it, growing more foul, foggy, obscure and gloomy than the preceeding part of it, and the air stagnant, and close.

As to the Winter, the weather in it was still more foul, foggy, obscure and gloomy, with a frequent dead stagnation of the air, though it was, at times, tempestuous as in the preceeding seasons. It was also excessively wet and moist, and also very warm for the time of the year. For this Winter was quite an open one, though the weather was very cold and raw at times, and now and then frosty on nights. Thus we see that the constitution of this year was remarkable for the excessive coldness and dryness of the Spring; the great coolness and moisture of the Summer; the vast quantities of rain, and the very foul, foggy, moist, and stagnant state of the air in Autumn; and the extreme impurity, moisture, openness and warmth of Winter.

And agreeably to the very cold, foul, and raw state of the air in Spring, the Influenza returned in it; and asthma's were common among children and old Persons*; there were also many consumptions. Violent pains in the head and face were likewise very prevalent; in which some were almost inclined to grow delirious, even while they were able to walk about. And some actually had violent

* Even Dogs were affected with Fevers, inflammation and mortification of the lungs, and all the signs of internal corruption.

attacks on the brain in them, that were sometimes fatal*; while others had Phrensiest†, and violent hæmorrhages§. The scarlet Fever and sore Throat likewise appeared again in this season; and there were many instances of sudden death, even among young Persons‡; a sure sign of the increase

* A young married Gentlewoman too much inclined to grow fat, after having the rheumatism in the head, had a violent attack upon the brain that proved fatal. She had been inoculated when young: both the eruption and maturation of the small pox, being restrained, by the preposterous method of sending patients out into the cold, at all times of the year, and the administration of the antiseptics then in use. In consequence of which she had been subject to eruptions on, and even a swelling and enlargement of the face for some years past: she had also lain in, in the Winter, and her milk was gone. I was informed this case was taken, as another I have related had been, I suppose on account of some distortion of the eyes in it, when the brain became affected, for an Hydrocephalus. See Case in page 134.

† A young Woman about 20 years old, of a delicate habit, who lay in this Spring, in Town, after repelling her milk within the month, on account, as was thought, of her not being able to suckle, had a violent sudden attack of a phrensy, in which she drowned herself, by jumping into a pond of Water in the Garden. As was the case, and from a nearly allied cause, with many unfortunate persons, who ran and jumped into the Thames, during the great plague in London; namely, the great internal heat and ebullition of the blood and humours in that Disorder. See my observations in page 143, on the coming on of a Coma in another case, after repelling the milk for similar reasons.

§ An old Man of a very scorbutic habit, had now a violent hæmorrhage at the nose, and after it an Elephantiasis, and tendency to dropsy. And a middle aged one, also of a scorbutic habit, and from thence in a decline, died suddenly of a pulmonary hæmorrhage.

‡ A Man who used to drink large quantities of Ale, died suddenly in the night, in the very cold weather in the beginning of Spring; and likewise two other persons; one of them an hear-

trease of the intemperate, or pestilential state. People were now much subject to foulnesses on the skin, Boils and Impostumes||.

In the excessively cold weather, in the beginning of Summer, there were also many sudden deaths; and several fell into apoplexies*. Many were now attacked with burning Fevers accompanied with rheumatic pains†: and they were sometimes preceded by convulsions in children, or attended with them. People were also much affected with chronic rheumatism, and the gout. Bad inflammations in the eyes likewise were now common; the foul humours falling on them both externally and internally: bringing on a fistula lachrymalis in one case, and a perfect Gutta serena suddenly in another. Fevers about the middle of this season grew very bad: being attended with deliriums and Comas§,

ty but fat Woman, not more than 30; and the other a young Man, but of a bloated habit, who did not use proper exercise.

|| A young Man had a large impostumation, with livid appearance and oedematous swelling in one thigh. This vast push of humours came on after a Fever attended with a diarrhæa, that I believe was restrained by the use of opiates. The enormous quantity of near a gallon of most putrid offensive matter was discharged from it. He died in a few days; a slow Fever going on to the last, as in other uncritical impostumes already described.

* A Woman about 50, seized first with a paralysis, died of an apoplexy the night after the seizure.

† A Woman had one of these Fevers, attended not only with violent pains, but also eruptions on both legs, from the violent force of the foul humours descending into or rather thrown upon them.

§ A violent case of this kind, in a Gentleman rather beyond the middle age, of a gross habit, and used to live very freely, was relieved by an Erysipelas in the leg, that suppurated and saved him, according to the observations of Hippocrates, in Stat. Pest.

and

and sometimes gangrenes in the limbs†; and often proving fatal*. And from the hot state of the atmosphere, accompanied with a cold northern wind towards the latter end of it, colds, and sore throats were very epidemical; running through whole families, as well as Fevers without them.

But in the Autumn burning Fevers raged attended often with Phrenitis; and persons who had them were more than ordinarily subject to relapses or returns†; though that had been, in some measure, the case for a year or two past. They were of the kind therefore described by Hippocrates in Stat. Pest. being often attended with Diarrhæas and at other times, inflammation of the bowels; and some dropped off very suddenly of the latter‡. Others had Pleurifies,

† An old Man who had a burning Fever, with swelling and impostumation in one leg, died of a gangrene in it.

* A Man about 60, of a very scorbutic habit, subject to sore eyes, and who, from the same cause, the tenacity of foul humours, had lately lost his hearing, died now of a burning Fever attended with a suppression of urine.

‡ A Person who was thought to be recovering from a burning Fever, died now of a relapse attended with violent symptoms at last: and to use once more the expression of Hippocrates, *Phrenitide periit*.—Let it here be observed, that this is the third bad case attended with violent attacks upon the brain, and phrenetic symptoms, that I have related, wherein no proper methods were used to attenuate the foul humours, and prepare them for separation, nor to duly unload the body previous to the attack, that has proved mortal.—

A young Man through imprudently eating and drinking too much, and going out too soon into the cold after a Fever, had now also a relapse that was very near proving fatal.

† Two Persons died of these inflammations in the bowels. And a Gentleman who drank Cheltenham Water this Summer; after the appearance of scorbutic swellings in the legs, with a tendency in one of them to impostumation, which was imprudently

fies, and Peripneumonies§. There were also some violent uterine hæmorrhages. And in the latter end of this season, and beginning of Winter, the measles were epidemical, and very fatal, in close large Towns, among children||. The chincough was also prevalent in some places; bad

dently repelled, had now a return of inflammation and violent distention of the vessels of the liver, to which he had been subject, but by proper assistance he soon got better. Another had a lingering Disorder fixed on him in the decline of life, by the improper use of bark in its beginning. And a young Man, who, after imprudently drinking too much Cheltenham Water, in a scorbutic habit, sweat plentifully on nights, its natural effect, and happened to hawk up some phlegm, streaked with a little blood, was immediately concluded to be in a consumption; and instead of losing a little, taking some gentle aperients, and abstaining from the use of the water a few days, packed off to Bristol. Losing thus all the good effects of it, in opening the close texture of the blood, and scouring the constitution: though I have shown in the first case in my Treatise on it, that it was successful in curing a confirmed hectick in such an habit, when the Water at Bristol failed. Schoeffer a sensible Physician at Ratibon, in a Treatise of his, has justly observed, that it is necessary to attend more to the nature of Disorders than to symptoms. And Dr. Adair has, with great propriety published some medical cautions upon the same subject. My Books are full of the matter of both. But what is to be done with those who are determined to follow empyrical modes of practice, without seeking after, or being disposed to attend to better knowledge, or who can teach them?

§ A burning Fever accompanied with inflammation both of the lungs and pleura, and great weakness after once losing blood, was very near proving fatal even to a young Man. And if the vessels had not burst, and a spitting of blood came on, probably would have been so; so highly tenacious, and of so indolent and inseparable a nature, were the morbid humours, and so impacted on the lungs.

|| Three Children, (all their Parents had) died in one house, of the measles, in one Town; and four in one house in another.

burning

Burning Fevers still going on*, and bad coughs becoming general.

C H A P T E R X I I I .

Of the Continuance and Increase of the Pestilential Constitution, in 1790.

AFTER the great rains in the preceeding Autumn, and a warm, moist, and quite open Winter, the Spring was uncommonly cold, dry, and harsh, with severe winds out of the north-east, raw ones out of the south, and very tempestuous ones out of the north-west, and west, succeeded by large quantities of rain. And this disposition to tempestuous, wet, and also cold weather, continued through the Summer. For though it was, at times, very close and hot, and once attended with very violent lightning, yet cold did, on the whole, so predominate, that there were violent hailstorms even in the middle of that season. A cold wind prevailing even then, while another current of air with clouds came in a quite opposite direction, viz. from the south, for several days together. The very tempestuous and extraordinarily cool and raw western one however was generally prevalent, and the great ruler of it. Rendering it un-

* After some cooler weather out of the north-east, even a Child between 3 and 4 years old, died of a phrenzy. And a bad Erysipelas, that would not suppurate, proved fatal, as such, described by Hippocrates, did, in Stat. Pest.

usually

usually cold in general, exclusive, as I have said, of some few returns of sultry weather of short duration. It was also, as I have observed, excessively moist, from the great quantity of rain that fell; there being more or less almost every day, and seldom a dry one. And from these frequent falls of it, and the great quantity of vapours that in consequence, at this season, soon rose again, and stagnated in the Air, the sun was generally clouded, and the sky obscure, and the weather necessarily unwholesome.

As the Summer was remarkably cold and wet, the beginning of Autumn was as uncommonly warm, and the Air very close and stagnant: the beginning of Winter, on the contrary, very tempestuous. And after the remarkable thunder hailstorm, that proceeded with a tempestuous hurricane with such violence, through the kingdom, the weather in the beginning of Winter was very wet and windy out of the western points, and excessively changeable: but, exclusive of a fall or two of snow, that did not last long, quite open as the last.

In the very moist, warm, open and often stagnant state of the Air and weather, in last Autumn and Winter, the measles were very epidemical, and uncommonly fatal, in large close Towns, as I have already observed. And in consequence of a great change from this to severe cold, in the beginning of Spring, the Influenza with complaints on the lungs, and the chincough of a bad kind, grew also very prevalent, going on through the Summer. Agues and burning Fevers were also numerous, very sluggish and apt to hang on long, and also apt to return; many of the latter, even early in the Spring, coming to a fatal issue. They were attended with great weakness, and a quick and weak pulse: a Diarrhæa coming on in several cases; in some of which the stools were very foetid, and even black, the putridity was so great.

I need not mention that, on the rise of these Fevers the morbid humours were sometimes determined to the lungs, bringing on inflammation in them; nor that at others they
fell

fell upon the liver and stomach, having the same effect : while, on the contrary, in some they took a different turn, and were most disposed to affect, and make a greater impression upon the head.

Rheumatic Disorders prevailed both with and without Fever. Several were afflicted with bad coughs, ending sometimes in consumptions; and some had dropsies. And among other complaints, for both the Spring and Summer were remarkably unhealthful, many were taken with convulsive Fits, and several persons, as in some years of late, dropped off suddenly.

In the intemperately hot weather in Summer, many were taken ill in the fields, and obliged to lose blood; the foul humours were so greatly rarefied, yet withal confined in the vessels, and the latter so oppressed by the combined powers and action of heat and cold. And in the cold, moist, very tempestuous, and at other times, stagnant state of the Air in it, burning Fevers were attended with an high degree of putrescence, extreme debility, and great lowness of Spirits; the dissolution and corrupt state of the foul humours were so great†. Most complained of great giddiness of the head in them: and they were long, as I have said, in wearing off. In some the corrupted tenacious humours took a turn outwardly, by way of impostumation. But even young persons, capable of making such efforts, were sometimes so reduced by the profuse discharge of foul humours from them, as to stand in need of the Bark, and a moderate use of Port Wine, to support them under it. And in such cases, these methods were found useful and necessary. The Bark also, exhibited in this manner, by way of support, under great reduction of the constitution, after a profuse discharge of the dissolved morbid humours

† Towards the latter end of this season or the beginning of Autumn, accounts were received, that there was a bad Fever attended with a sore Throat in Cornwall, of which 15 Persons had died; and that it was fatal in 3 days. And a Disorder somewhat similar was said to prevail at Marseilles.

internally

internally by a Dyfentery, will sometimes agree tolerably well, as I have already instanced in a case of that kind; and after the use of Calomel in some cases, on account of any great weakness that, after taking it, has come on in the course of the Fever, requiring such treatment. And these are the chief, if not only cases, I have known, that would admit of its proper use: but not others differently circumstanced or treated, at least not so early in the Disorder. In violent burning Fevers therefore, where nature can get no relief by the skin, nor even by the secretions of the bowels themselves, nor without impostumations in some viscus or other, it seems to me very extraordinary practice to lock up by so powerful an astringent as Bark, the only outlet nature stands a chance of getting any relief by; and whereto the gross, tenacious, impure, and corrupting humours therefore are frequently determined for discharge; and which is almost always wanting as a passage for draining a great part of such foul matter off. And the best reason that can be offered is, that many recover under such a treatment; but notwithstanding this it is far from being a good one; since nature often brings on a recovery, and effects the cure under the greatest difficulties, and sometimes even when the greatest obstacles are put in her way.*

Even in the Plague itself, which is undoubtedly a burning Fever of a peculiar kind, an infectious and general mortal Disorder, that swallows all other Diseases, and the forms of them, which under milder pestilential constitu-

* A Gentleman however through the ill use of Bark and Port Wine, in the beginning of one of these Fevers, hardly escaped an attack upon the brain, by leaving them off and the use of Clysters. And really was so affected in his lungs for a considerable time, thereby in it, as to endanger his falling into a consumption afterwards.—And a young Woman actually did drop off, in an uncommon manner, suddenly, after such treatment, when she was apparently so far recovered as to go out, and appeared almost well. For no Person is in safety, or can be free from danger of a relapse, or transition of the Disorder into worse complaints, while the morbid humours in quantity are retained.

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tions are retained†, I doubt not but some would be found hardy enough to exhibit bark, under a notion of resisting putridity and supporting strength, without any regard to the tenacity and consequent inseparability of the morbid humours, even in the first stages of that Disorder. The consequence of which we have already seen, in the dreadful mortality attending such use of it, in loaded habits, in the endemial Disease of the western part of the world, the yellow Fever: which, under a violent intemperature, partook so strongly of a pestilential nature, last Summer and the beginning of Autumn, as, through this and bad treatment at first together, to prove mortal in a degree equal, in proportion to the number of inhabitants of Philadelphia, to that of the great plague of London itself.

After due evacuations indeed, either naturally or by medicine; and in those stages of Disorders, wherein, after them, nature begins to droop, Bark and Port Wine, properly used, sometimes are noble remedies. As they are likewise in gangrenous sore Throats of the putrid kind, after the use of vomits; and also in gangrenes external, to stop their progress, and promote the separation of the mortified parts; if due care be taken to give proper relief to the constitution, both before and during their use. But in vain often shall we expect these good effects from the indiscriminate use of them; which are by no means likely to come on but under proper circumstances, judicious management, and general good treatment.

In the tempestuous, wet, and very changeable weather in the latter end of Autumn, and in Winter, the small Pox

† In the epidemics of Hippocrates therefore we meet with no such word as *λοιμος* pestis. This dreadful Disease however is certainly one of those, that by divine power, in a miraculous manner, was inflicted upon the Egyptians, as we learn from holy writ. And was at least as early in the world, in a natural way, as that memorable sickness called the plague of Athens; and probably long before, if we may judge from the word *λοιμος* itself, in use before this among the Greeks.

raged

raged in many parts of the kingdom, and were almost general; carrying off vast numbers, as the Measles did last year, though they were seldom of the confluent kind with us. The Disease was frequently attended with great itchings, so foul and acrid was the state of the humours; and the Pocks were often of a pale, ill-looking, and ill-conditioned kind. The Disorder by inoculation however was attended with remarkable success till towards the latter end of Winter, and beginning of Spring.

C H A P T E R X I V .

Of the Continuance and Increase of the Pestilential Constitution, in 1791.

THIS year was distinguished, in a very peculiar manner, by the very tempestuous winds that blew, and so often returned, at times, through the whole of it; and also by its intemperature, in regard of cold, in Summer; the exceeding fine, and uncommonly warm weather in the beginning of Autumn; the great changeableness of it; and the extraordinary, and often sudden alterations in the Barometer; it rising to 2 degrees above settled fair in the Summer, and falling as much in proportion, that is half way between great rain and stormy weather, more than once in Autumn, varying in the whole 2 inches and a quarter.

The latter end of Winter, or beginning of Spring, indeed, was fine with regard to power of sun, for some weeks. But there were withal some very piercing winds, first out of
the

the north-east, then out of the north-west, and some yet colder and rawer, and having greater influence on the body, out of the southern points. And in the night of the 18th of March, before a large quantity of snow fell, the weather was so severe, and wind so cold, out of the first mentioned quarter, that an horse was said to be killed by it, others disabled from travelling, and some men, on the coast of Suffex, almost starved to death. And again about the middle of Summer, there was such a return of cold weather, with sharp winds and severe frosts on nights, and in some places snow; and such uncommon storms of hail, as had hardly been known in the memory of man. And yet there was at times also some very hot weather, so great were the changes in the atmosphere.—Also about the middle of this season, after a good deal of gentle rain, there was a sudden change from mild to very cold weather and winds, and from south to full north. Even at this time however, though so cold, a meteor appeared in the night, in a direction from east to west; shewing a considerable power of heat withal in the atmosphere, though there were hail-storms and storms of snow, even in this usually hot part of Summer, and many more in the beginning of it.—After this there were frequent returns of rain, tempestuous cold winds, chiefly out of the western points, and perpetual changes of the weather from warm to cool, et vice versa. Though there was, as I have said, more of cool than hot weather, the former being much predominant.—In the latter end of this season indeed there was some very hot weather, nay some excessively so, but very changeable as it had been; it being also, at times, very cold and that suddenly. There was also a great deal of rain, and sometimes high winds out of the south-west and west as before.—The weather likewise continued extremely changeable in the beginning of Autumn, though on the whole remarkably warm, with some sudden returns of cold. For some years past it has been common to have the finest weather in the year in this part of it, which was peculiarly the case this year in the beginning of this season. There was however a vast quantity of rain before the end of it: and then, with an excessively cold and raw tempestuous wind out of the north, a great fall of snow and some very cold, but very changeable weather, for some weeks; it often thawing and even rain-

ing, between returns of very severe and falls of snow.—In the Winter, particularly the latter end of it, the weather was excessively variable, as it had been in general throughout the year; and either uncommonly warm, or exceedingly cold, the wind changing into the opposite points of north and south daily||.

Immediately after the Winter solstice burning Fevers appeared as usual, but in a more malignant form, and attended with very atrocious symptoms. On the attack a violent vomiting sometimes came on, that nothing could alleviate and take off for 3 or 4 days. And directly on the cessation of it, the brain became violently affected, two young persons dying phrenetical about the 7th days. The small Pox in several cases not of the confluent kind, and even in some by inoculation, was now complicated with the burning Fever through the whole Disorder in many: and it attacked more on the decline of it, they frequently with difficulty recovering. Impostumes in the legs, feet, arms and armpits, becoming now common among inoculated Patients, though there was not an instance of the kind before among an 100 Persons. Many also in Fevers were afflicted with the sore Throat; an effect undoubtedly owing to the uncommonly warm state of the Air, for the season, and its great changeableness, and sometimes also very cold state. And even as early as the latter end of

|| There was an uncommon Meteor over the Town of Birmingham, one evening in the middle of Winter, that so enlightened the air as to be seen at ten miles distance.

§ A Boy about 9 years old, in one of the Fevers, after lying longer, attended with violent pain in the head, and a constant return of delirium every night, at length sunk under it. It was brought on by imprudently repelling a rheumatic complaint in one hip, by the use of the cold bath: the disorder creeping on by degrees afterwards, and as the Winter advanced, till it at length broke but in the violent Fever above described. Another Fever also, in a young Man, was brought on by the imprudent use of it: which, if a plentiful expectoration had not come on in it, and continued through its decline, would probably also have proved fatal.

A little Boy also was soon after attacked with a burning Fever, attended with affection both of the head and breast; which, if he had not had timely assistance given him by the use of the lancet, would probably have ended fatally. As it was, the Disorder in his breast continued so upon him for several months, that he appeared, though a child, to be in a consumption. He however, through the help of a long continued, though difficult expectoration, at length recovered.

Febru-

February, the scarlet Fever and sore Throat appeared in a Town where there are Glass-houses; there being some pretty violent cases of that Disorder. There were also some bad ones of the acute dysentery at this time.

During the inclement and changeable weather in the latter end of Spring and beginning of Summer, sore mouths, and some of them very bad ones, were a general complaint. Many were affected with rheumatic Disorders in Fevers, and many went off in consumptions. Further in this season, when the hailstorms and snow fell, Fevers were very epidemical among children; some being so much oppressed with phlegm, and affected with such difficulty of breathing, as to be in danger of being suffocated.

† A Boy 12 years old, after taking a violent cold, by putting off his clothes when he was hot, was attacked with a burning Fever, accompanied with a Dysentery. The Disorder went on, with an increase of pain in the paroxysms, which returned regularly every night, for a month. Then, upon its decline, he was affected with both only every other night; the case from hence most evidently shewing itself to be the present burning Fever, attended with the other complaint. The Disorder began with obstructions in the bowels and a want of stools: and after the exhibition of a dose of Calomel, the foul humours making a transition, or being translated into the limbs, it then took upon it the appearance of an acute rheumatism. Returning however into the bowels, he had black and offensive stools, during the remaining course of it, attended with most violent pains in the bowels, upon each increase or return of Fever, as I have said. But though reduced at length to the greatest exigency, and in real danger, by waiting properly on the case, with the assistance given him, he gradually recovered. Now from this case what can be plainer, than that the constitution by the Dysentery carried off the cause of the Fever, and that the foul humours were not disposed to pass off any other way? And that rheumatic complaints, inflammation of the bowels, Diarrhæas, Dysenteries, inflammations in the breast, and disorders of the lungs, Deliriums, Phrenesies, and the whole tribe of complaints attendant on Fevers, are none of them the original Disease, but only accompaniments of the latter. Coming on variously with them in different persons, and increasing under them, as the body happens to be originally disposed, by reason of the weakness of any of the viscera, or peculiarly circumstanced with respect to the quantity, or quality of the foul humours, at the time of the attack, or during the course of the Disorder, and the latter disposed to fall here or there, and bring on this or that complaint, the effort for the discharge of which is the Fever. Hippocrates by observation carries the matter to the greatest length; for he says, that even in lingering cases, and slow Fevers that ended at length in Dropsies, efforts even then went on, and that persons so affected had febrile symptoms before death. His words translated are, *ac fere omnes tumoribus corripiebantur, et in aquam inter eam evadebant: horrore concutiebantur et sub mortem delirabant.*

And some time after this, numbers of them had vomitings and Diarrhæas. Many were also attacked with inflammatory Disorders in the bowels in Fevers, and some had pains in the back*.

In the very wet, changeable, cold, and tempestuous weather in the latter end of Summer many grown Persons were also subject to fluxes and other complaints of the bowels; and some, who were not so affected, to Fevers with coughs; there being at this time also a return of the Influenza among children. Many of them as before continuing to be afflicted with such quantities of phlegm, as to kill some, and endanger the lives of others§. Fevers at this time were sometimes attended with eruptions, and discharges of the foul humours externally ||; and some had a bad kind of shingles without them.

In the beginning of Autumn complaints in the stomach and bowels were very common, through the repulsion of tenacious humours internally, and the oppression arising from thence, by reason that such foul matter would not pass off on account of the extreme inclemency of the weather. And some were even attacked with inflammations in them and the kidneys, others had Diarrhæas.—About the middle of it, or rather later, when there had been great rains, many children were affected with the Influenza, that is, a Fever with complaints in the breast: others had it with the sore Throat. Dreadful burning Fevers re-

* In the cold and inclement state of the atmosphere at this time, not only human bodies were affected, but horses with colds and coughs; which killed many that had not a plentiful running at the nose. And in the changeable and cold weather in Summer afterwards, there was a kind of general disorder among Cows, especially milking and feeding ones, and some died. And a violent Fever was said to be in Lincolnshire among them, attended with a great swelling of the head and throat, that killed in 24 hours.

§ In so oppressed a state were the bodies of some Children, that one died suddenly immediately after taking, if not while it was at the breast.

|| A Woman in one of these Fevers had an eruption on the head, and runnings from behind the ears, which relieved her after having it 3 weeks before this happened.

turned

turned at this time, beginning with the grievous sickness before mentioned, and ending in delirium, or phrensy, and death, as they had done in the Spring*. Some dropping off in others accompanied with inflammation and at length gangrene in the bowels||, or inflammation and impostumation in the liver†, &c. Cases now, from the much increased tenacious state of the foul humours in the blood, and their incapacity of being thrown outwardly, often ending in internal impostumes in the viscera, as they had before that period, in external ones; in order, by their dissolution, to discharge such deadly matter from the body, that being now the only way nature had left, in many cases, of attempting to preserve life.

In the latter end of Autumn, and very cold weather in the beginning of Winter, there were numerous instances of sudden death: and many apoplexies and palsies often fatal. And immediately after the Winter solstice burning Fevers gained strength: and many had violent phrensies in them, even children and young Persons, they being apt to run through whole families§. And in the severe, very changeable, and damp state of the Air in the middle of this season, the Influenza was very bad, especially in London.

* A young Man died now of one, attended with these symptoms or complaints and the sore throat, in 4 days.

|| An elderly Gentleman, who had first in his Fever a Diarrhæa, had after this inflammatory obstructions in his Bowels, that ended in the iliac Passion and gangrene: he died in 14 days. See Hippocrates concerning these Disorders in Stat. Pest.

† A Man between 20 and 30, subject to scorbutic eruptions, and who had lately had some very bad ones in his legs that were imprudently repelled, died after struggling in vain with it for some weeks, of a bad burning Fever accompanied with inflammation and at length impostumation in the liver.

§ A Child about 10 years old, after having a phrenzy in a burning Fever for a fortnight, which had come on twice before, died at length in a comatose state. And another in the same family, was attacked with the same kind of Fever.

CHAPTER XV.

Of the Continuance and Increase of the Pestilential Constitution, in 1792.

THIS year peculiar for the coldness, wetness, and tempestuous state of the weather, was however most remarkable for the uncommon changeableness of the air in it. Which made the Summer in particular the coldest and most uncomfortable one I ever knew; and the state of the weather in Autumn, for that season, was full as bad: the Air being then quite full of vapours, with a sometimes stagnant state of it, and so prodigiously foul, particularly in London, that Coaches sometimes could not be driven along the Streets in safety.

The joint effects of this inclement and impure state of the atmosphere began to shew themselves even early in the year, in more violent burning Fevers than had been usual at that time in former ones†. These had been preceded by a dreadful Chincough in the Winter, fatal to numbers of

† One Family was affected in a very peculiar manner indeed: a married Woman in particular, who had a relapse, now very common in Fevers, attended with convulsions, which was very near proving fatal; and a Boy 6 or 7 years old, who lay insensible, with the lower jaw dropped, and the tongue parched almost even to blackness, for more than a fortnight, under apparent signs of dissolution, a great part of that time. The former, however, having taken a little Calomel early in the Disorder, was in a condition of being supported by the bark when weakness came on, and thus recovered. As did also her Husband, who had the Fever in a milder way. The Boy also weathered the disorder and recovered under a similar treatment: as did also another child, though one of them died not long afterwards.

Children

Children in some Towns in Derbyshire and Yorkshire, where it was in a peculiar manner prevalent. Hanging on, with frequent violent returns in many, for half a year or more, even among those who recovered; and being accompanied with ulcerated mouths, attended with great putrescence, during the height of the Disorder, in some, and with foul eruptions on the skin in others, manifest tokens of its highly pestilential nature.

Burning Fevers under their various forms, as attended with inflammation of the bowels, breast, &c. went through the Summer as usual†, but in the Autumn were very bad indeed; being often attended with phrenesies, and frequently mortal||. Many at this time complained of a sense of great coldness, lasting for several days in their beginnings,

† The intemperature and changeableness of the air in Summer was so great, that a young Man was seized with a phrenzy as he was travelling; the effects of which upon his brain did not go off for several days.

|| A Girl about 16 years old, soon after the first appearance of the menses, and an intermission of them, and want of regular returns, was taken with a fit of insanity, which may be considered as hereditary, her Father and others of her Family, having been subject to that Disorder. During its continuance she complained one day of a sense of great coldness; which not being properly attended to, all the succeeding symptoms were looked upon as dependant on the original Disorder; and though she had undoubtedly, at that time, an attack of a Fever, the nature of the case mistaken. For with true Phrenitis she had now great heat, especially internally, thirst, and a very dry and even brown tongue. And the consequence of this misapprehension was, that, after using medicines to lower the powers of the constitution, under a notion of relieving the original Disorder, she gradually sunk and grew weaker, falling at length into a coma, and going off in it, with the other febrile symptoms attending her to the last. So cautious ought Practitioners to be in observing well, and marking every symptom that arises, as well as attentive and careful in getting knowledge of the true nature of the reigning Fever, that they may be able rightly to distinguish the difference of Disorders. For the want of this, and not paying proper attention to the attack of coldness above mentioned, was probably of fatal consequence in this case.

* An old Man went off in a burning Fever attended with a gangrene in one leg — And a young Woman, between 20 and 30 years of age, of a very scorbutic habit, also, died comatose soon after the attack of one; the whole mass of blood being suddenly in a state of dissolution.—She had a flux by the bowels about a month before, which then relieved her; and before the

nings; so unattenuated and tenacious were the humours, through the ill effects of the preceeding cold Summer upon them, and the great retention and accumulation of them in the vessels. There being in consequence thereof, a very imperfect circulation through the finer external vessels, occasioning this coldness; all the heat centering within, as is always the case in bad Fevers of the burning kind. From the same causes, the retention and accumulation of tenacious foul humours in the vessels by the coldness of Summer, the Influenza on the coming on of colder weather in Autumn, also became general, and frequently mortal. Sometimes more suddenly from violent inflammation, ending in mortification of the lungs; or by suffocation from a load of foul humours thrown suddenly upon them; at others, later in the Disorder; and sometimes also through succeeding Disorders brought on by it.

Among the number that died both of this Disorder, and burning Fevers attended with other complaints, many were young Persons. And many affected with them, were remarkably swollen for several days; a symptom that often suddenly went off as in 1778. The scarlet Fever and sore Throat after a violent manner, as in that peculiar year, was

attack of the Fever, a flux of humours to one arm; evident signs of the foul state of the Juices. This fatal case most probably came on for want of cleansing a foul habit after the Measles, by the use of Cheltenham Water, or some other proper method.

A Man of a gross habit had an inflammation of the liver or hepatites, attended with intense pain, in the beginning of one of these Fevers, for which he was obliged to lose blood several times, in pretty large quantities; bleeding however, so often repeated, is not often well borne in the present Fevers; an instance whereof will soon be taken notice of.

§ See Hippocrates de Morb: vulg. in Stat. Pest. concerning this continuing coldness on the attack of burning Fevers, but affecting chiefly the hands and feet in those he describes. It being followed by a very peculiar comatose disposition: in which way they went off, even those attended in Fevers with phrenzy. His words, in describing the extraordinary nature of the former, translated are—*His quidem pedes summi et manus frigidiores evadabant, multorumque maxime circa accessiones, deinde vero lente nec probe recalescebant.*—Concerning the latter he writes thus—*Quin et similia phreneticis fiebant. Atque hi omnes sine siti erant. Neque phreneticorum quispiam vehementer insanivit, sicut in cæteris usu venire solet, sed ex mala alia quædam et languida in somnum degradatione graviter peribant.*

also

also prevalent at this time*; and there was likewise a return, in this autumnal season, of the bad Chincough abovementioned.

Many Persons, without any preceeding indisposition, and apparently in good health, died suddenly this year, as well as others of bad habits; the whole mass of blood, as appeared by the uncommon stench arising from the body, and the livid spots upon it, immediately after death, being sometimes in a state of putrefaction before it —Many, and among them not only middle aged and young Persons, but also Children, had obstinate Jaundices; and they were fatal to several old Persons. As were likewise Consumptions to those of all ages. There were also numerous instances of Insanity this year§.

* A Child died of this Disorder, greatly affected with it under the hot treatment.—It is certainly in general male practice to begin with an hot or astringent method, especially in a Disease attended with so great internal inflammation, however necessary it may be in some cases, to support Patients thereby in the latter end of them.

§ A young Woman about the period of the return of the menses, which were attended with a very small discharge, was seized with a convulsive Asthma, complicated with the nervous Disorder called St. Vitus's Dance. After losing some blood, she was relieved chiefly by a dose of Calomel, and repeated vomits.

CHAPTER XVI.

Of the Continuance and Increase of the Pestilential Constitution, in 1793.

THE Winter, in the latter end of last and beginning of this year, as that in the end of 1789 and beginning of 1790, was quite open throughout, but abounding in raw, tempestuous weather, and high winds, chiefly out of the western points, and remarkable for the great rains that fell in it, and consequent dampness of the earth and mistiness of the Air; the weather in the latter end of it, and beginning of, and all through the Spring, and even beginning of Summer, being more severe than in the middle of it, as has been the case in several preceeding years.—After the first cold weather, even early in the Spring, there was a great deal of settled rain as in the preceeding season, succeeded by raw and gloomy weather, and a foul and moist Air, with now and then a fine day and clearer atmosphere. The severe cold returning after this, and the wind settling in the north east, which became the ruler of the year. This weather continuing, and there being perpetual changes from any warmer states of the Air, to such cold, raw, and sometimes severe ones with high winds, that with foul and wet weather, great snows also fell as late as in the latter end of May, and beginning of June. This season being remarkable for its wetness and most inclement coldness; for the weather was so severe, as to freeze Ice in the night as thick as an half-crown, even in the latter end of June.

After

After this extraordinary coldness in Spring, the weather grew on a sudden so hot, that people could hardly bear this uncommon transition so soon from great cold to extreme heat, their very breath being hot, and they not able to rest in their beds on nights. The heat in the atmosphere at this time was so great, that before the middle of July, Fahrenheit's Thermometer hung facing the north, in a proper situation where there was no reflexion, was more than once up at 85, and by one 87; and not lower any day, in the hotter part of it, than 82 and 83, for several days together. The extreme heat continuing longer than in any Summer for 60 years past: that in 1750, 1778, 1779, and even in 1783, being of much shorter duration.

This had such an effect on the succeeding Autumn, that in consequence of it, that season was uncommonly fine, warm, and dry, to the falling of the usual rains in it, which this year came on very late, not before the beginning of December. But when they did come, falling in such quantities so suddenly as to occasion large floods; there being some very cold, frosty weather, with a foul atmosphere, in the beginning of Winter after them, and a continuance for several days, of such weather before the middle of Winter, but that went off about that time*. However there were very sharp frosts, generally on nights, after this: the weather being often warm and open in the day, though the Air was sometimes cool and damp. In the latter end of this season, the weather was very wet; there being sharp frosts on nights, and a colder state of the Air afterwards.

In consequence of the unseasonable and unwholesome state of the Air, there were burning Fevers with phrenitis in the Winter*, as there had been in the Autumn; those of the
rising

* A young Woman, sister of the Boy that was seized with a Phrensy while travelling, was, in the Winter, after an intermission of the menses 3 months, attacked one morning with a Phrensy; and would certainly have jumped out of a chamber window, had she not been prevented by a fellow servant; falling

rising year coming on as usual with increased violence soon after the Winter solstice, and being frequently mortal under all their forms, and very soon too. So that more Persons dropped off, and many of them young ones, than I ever knew at this time of the year. Some of these Fevers were attended with inflammation of the lungs, ending in impostumation||, and sometimes in mortifica-

ing immediately into a convulsive fit; all of which happened on the coming on of a burning Fever. And notwithstanding this increased action of the whole body, there was such a strong tendency to total stagnation, that her flesh had a clammy coldness to the touch like that of a dying Person, she looking withal very pale and wan. This peculiar coldness lasted for some hours; she being at the same time so faint that no blood could be taken away, for the present, with safety. Seven or eight ounces however were drawn after she grew warmer, the loss of which she very well bore. And by the use of this, a vomit afterwards, and a dose of Calomel at night purged off next day, this violent and dangerous Fever was abated and stopped in its progress, the circulation rendered free through the vessels, the oppressed state of them taken off, and the Girl so effectually relieved that though a paroxysm came on next morning, at the time she was seized the day before, and rose so high as to bring on a delirium, which afterwards returned with a tendency to Phrensy, yet she recovered, on the whole, with ease, and in a short time.

§ Two young Women not more than 18 or 19 years old died of them. One being attacked in 2 or 3 days after overheating herself by walking, and probably taking cold afterwards: going off in five days after the coming on of the Fever, and the other after a somewhat longer illness.

|| A Gentleman died in the Spring of a burning Fever, attended with inflammation ending in an impostumation in the lungs. He lost blood several times, in order to abate heat and lessen inflammation, during the course of the Disorder. And this method was used not only before the breaking of the first abscess, but pursued afterwards, under a notion of preventing a second, which from the symptoms, it was expected would otherwise have followed the Disorder.

tion†. These complaints being now very common, as was also that very fatal Disorder called the Croop among Children. Some had them with rheumatic complaints, or pains in the limbs§; and others with the sore Throat. But the most epidemical and fatal were those joined with inflammation of the pleura and lungs. They were now attended very generally with great weakness, and a peculiar coldness externally, though there was, at the same time, in consequence of increasing tenacity and impurity of the humours, and natural inability of carrying on well their circulation and secretion through the finer vessels of the external parts, great inward heat, from quantities of hot vapours rising within, and being confined internally; they thus coming nearer to the full nature of the burning Fever, or *νεύρος Graecorum* as described by Hippocrates, than those of preceding years.

In the cold weather in Spring bad Fevers went on, and with what affection soever of the noble parts, whether of the brain, lungs, or bowels, they were attended, were frequently mortal among grown Persons, but more fatal to Children, among whom they were, in a peculiar manner, epidemical. In these they were often accompanied with the sore Throat, and bad ulcerations in the mouth; large
floughs

† This was now the case of a Lady, who died on the 4th day after the attack: and also of a Man of a very loaded habit, who had drank very freely, and had been used to be much out in the cold.

§ A Man of a middle age, died of one of these Fevers, attended in its beginning with pains in the limbs, and of the kind usually though falsely called rheumatic ones: for the burning Fever was the radical Disease, in whatever shape it appeared, or with what affection soever, internal or external, it might be joined or attended with, as I have already demonstrated. After having the pains above-mentioned a few days, upon a recession of the morbid humours from the limbs, attended with a peculiar sense of internal coldness, though he was, at the same time, in a warm sweat externally, the head and the whole nervous system
were

sloughs separating out of the former*, succeeded by considerable discharges of blood from the parts, and sometimes also from the nose, which appeared to be useful; most of those who had them recovering*, and others in whom the Fever was of a more sluggish nature, dying; some dropping off in an unexpected manner very soon. In some these Disorders were preceded by and even complicated with the chincough: for at this time the bad one of last year returned, being often attended with a burning Fever through the whole Disease, and children towards the end of it, having frequently bad ulcers in the mouth, and sometimes foul eruptions on the skin, which seemed to contribute to the recovery of these, but several died. The Influenza also grew prevalent, there were several instances of the Croop, as in the preceeding season, and a bad kind of measles became epidemical||; but the most common and fatal Disorders with us, in this cold season, were Fevers with Pleurifies and inflammation of the lungs, as I have already observed.

were attacked, a delirium came on, and notwithstanding the use of blisters and other proper methods, at length subsultus tendinum, and he died in a few days.

* One Child about 5 years old, had so bad a sore Throat, that a large piece of the Palate separated and came away. And after apparent recovery it died of a relapse, with convulsions, after going one evening to a Feast, and sitting up too long, and probably eating too heartily. See Hippocrates's observations in *Statu 3tio. de filiâ Philonis*. It is very remarkable that this Child, and several others that died, had been inoculated about 3 years before.

§ This Disorder which was very epidemical and often mortal in the Winter of 1791, and succeeding Spring, at Chesterfield in Derbyshire and Wetherby in Yorkshire, is of the pestilential tribe: as is every other that is communicable through infection by the breath, and I believe, also all those that are by contact.

|| The Measles were so fatal in London, that 4 Children out of 5 were said to die in one Family.

Both in this season and the preceeding, many had bad and obstinate Jaundices, and other bad Diseases of the liver†. Disorders also of the stomach of the chronic kind, and attended with eructations, and want of the powers of digestion, were very common†; as well as lingering ones in the bowels accompanied with internal heat, tenesmus, Piles; and some had large internal hæmorrhages or discharges of blood†; there were also many consumptions*, and likewise

§ A Woman in the Winter had a very bad Jaundice, that turned at length into what is called the black one. She was relieved however under great weakness in this dangerous state of the Disorder. Her cure consisted chiefly in the exhibition of some gentle doses of Calomel, and aperients with soap, with the use of repeated vomits.

† An elderly Man, who had lived freely and enjoyed health long, was now, and had been for some time, affected with a Disorder, seated both in the liver and stomach. Having not only a want of the powers of digestion, in any tolerable degree, but being also subject to large collections of bilious humours which he vomited up, mixed with other foul ones, sometimes to the quantity of almost a gallon, part of them also passing off downwards; after which, or the use of some gentle aperients, he always found himself much relieved, though he never received thereby any lasting benefit. His case for want of ability to purify the foul humours, thus necessarily thrown inwardly for discharge, and turn them into their right course, as well as to strengthen, and restore to their due tone and power of action the weakened parts, at length proved fatal: an hectic Fever coming on, in which he gradually declined in, and sunk under the Disorder.

‡ A Man between 40 and 50, subject to complaints of the lungs, and having now a Cough that had hung on him some time, in a fit of coughing burst a large vessel in the lungs and died in a few minutes so greatly were the internal vessels of the breast oppressed and loaded, through the extreme tenacity and impurity of the humours.—Two Women had also very violent uterine hæmorrhages attendant on Fevers, one of them during pregnancy.

* A young Man 17 or 18 years old, of a bad hereditary scorbutic habit, and who had been inoculated between 2 and 3 years
be-

wife numerous instances of sudden death, both now and in the Winter. All of which, together with the fatality attending acute Diseases, brought on a very great mortality: more persons dropping off with us, particularly in the Spring, naturally inclined to be healthful, than in any year, at this time, for 50 years.

When the extraordinary heat of the Summer suddenly came on this year, after the cold weather in Spring, many Persons dropped down dead in the fields while at work, it was so excessive. Burning Fevers also began to

before, was attacked this Spring with a kind of Erysipelas, or what is now called Pemphigus, on one breast and side, attended with a flux of humours into and swelling of the adipose membrane, and peculiar kind of hardness in the parts diseased. The humours impacted in them being of so ill-conditioned, indolent and tenacious a nature, that though Calomel was given and repeated in this state of the Disorder, and other methods used to attenuate them, and bring the parts to suppuration, no impression could be made on them, or any effect towards their dissolution produced. They instead thereof, and for want of it, making an attack and settling on the lungs also; whence he became subject to a cough, attended with a remittent Fever of the hectic kind. And though quantities of saline medicines were now given, and such other methods used as bid fairest for dissolving and discharging the offending matter, he gradually declined though his appetite continued good. An attempt was made by caustic to bring on a discharge from the parts, and a large eschar also formed itself under the armpit of that side; but both the artificial and natural effort were totally ineffectual. For the tumor far extended in, and possessing the whole breast of that side, and also affecting the arm, from compression of the vessels indeed in some measure, remained still as hard and indolent as ever, and the parts dry and unattended with discharge; even so much so that the eschars themselves would not separate. Large pieces of the skin and membrana adiposa at length putrefying, falling off, and coming away without any suppuration, attended with an intolerable stench. Under which dreadful circumstances, accompanied also with a consumption of the lungs, after holding out sometime he was at length gradually worn out and carried off; his appetite, notwithstanding his hectic Fever, continuing good to the last.

rage†;

rage†. And a bad kind of Measles broke out, and spread with such rapidity in the Country in one Parish, that near 50 Persons lay ill of them, and the Fevers attended with peripneumonic Disorders, that succeeded them, at the same time. A burning Fever attended with inflammation of the lungs often accompanied the Disorder, following it afterwards. At other times it came on some days after, attended generally with the same complaints, but sometimes not.—In these cases the heat often was so great, as, after dissipating the finer juices, and heating and drying up those more viscid, to act upon and parch the solids as with the force of fire. The Fever frequently running so high, and the inflammation being so great, that it was necessary at times to draw blood. They were in general best treated, by giving saline medicines with nitre and every thing that had a cooling quality, even when Diarrhæas came on. And when they did not, the use of gentle aperients, such as rhubarb and tartar of vitriol and soluble tartar, were eminently useful, as in 1778||. In some cases however, wherein violent purgings came on that reduced Persons to the greatest degree of weakness, it became necessary to restrain them a little by gentle methods, and to support these, and sometimes other Patients, by mild cordials and the use of a little wine, towards the latter end of them.

Thus it was with us at this time—but in the western part of the world, the hot Intemperature was so violent, that the pestilential constitution crossed over the Atlantic

† A strong Boy about 7 years old, died this Summer of a burning Fever with the sore Throat, under treatment by the Bark &c. as if it had been a putrid one; as did likewise a maid Servant in the same house. Another who took neither medicines nor wine, but only drank Water, recovered with ease. The same burning Fever with sore Throat akin to, and indeed of the same kind with that in 1778, ran through whole Families: and it is remarkable that most of those under medicinal treatment, in the village, died; and that most of those who let nature take her own course, recovered. Wherein may be fully seen, what I mean by the truth of simple practice used by Hippocrates, taken notice of in the Preliminary Dissertation.

|| I have already often taken notice of the great use of Aperients in burning Fevers, and shall soon have occasion to make farther observations on it,

ocean, and brought on a raging Pestilence, under the form of the yellow Fever, at Philadelphia in America, that carried off above 4000 Persons. It had been shewing itself, in some measure, before last year in some of the West India Islands, in an Increase of malignity in that Disorder, but was very fatal indeed in this. Medical Gentlemen taking it at first for a putrid Fever, gave Bark and Port Wine as usual, and treated it as such; but from the mortality attending their practice were soon convinced of their mistake; and after consulting Doctor Moseley's Treatise on tropical Diseases, and following his way of treating the yellow Fever, had better success. But they were not in the right, in calling the present Disorder, because it bore large evacuations, in some cases, well in its beginning, an inflammatory Fever, for it was a pestilential one. Though they had not however the clearest notions of its true nature, they were certainly right in unloading the habit then when necessary, both by way of giving relief, as well as of proper preparation for the use of Bark, when that was called for*.

Doctor Moseley, like a man of true learning and knowledge, and sound judgment, calls the yellow Fever a kind of *endemic cause*: it is so, but was this year an epidemic one, under a most violent pestilential regulation, whence the great mortality occasioned by it. He also as judiciously insists on the necessity of proper evacuations in its beginning, before putridity takes place. That those from the stomach and bowels, on the rise of Fevers under a pestilential state of the Air, are of the utmost necessity, I have already shewn in Pages 156, 157: as is also proper drawing away of blood, in strong and loaded habits, accord-

* Mr. Carey in his account of the causes that contributed to the rise of the pestilential fever this year at Philadelphia, and its fatal effects, very properly mentions among others, the thriving state of that City, and the luxurious way of living of its Inhabitants. For intemperance is a grand predisposing cause to Disease in general, and the ill effects of heat and bad Air on bodies, and their mortal consequences.

ing

ing to the indications given. And that preparation and unloading the body and attenuating the foul humours, by drinking proper mineral Waters before violent Fevers come on, must be of the greatest use, is too obvious a matter to be insisted on.

But to return from the consideration of this dreadful state of the Air and Diseases abroad, to that of them with us—Though the weather in Autumn then was uncommonly warm, and that season fine, it was far from being wholesome, but on the contrary, much otherwise, there being more instances of sudden Deaths than I had ever known. There were also bad remittent burning Fevers in all large Towns, as well as other places, as usual, but that now, especially in the former, ran through whole families, and were in many instances, evidently communicated to others, and killed many. But there was nothing so singularly peculiar to this season, as the vast number of abortions that happened, and the violent floodings in the 7th, 8th, and last month of pregnancy; cases of the most difficult and dangerous nature, and which were actually fatal to

§ A Gentleman about 42 years of age, who had a putrid Fever about 21 years ago, improperly treated in its beginning with the Bark, and that came to no due crisis; and one of the present Fevers a few years since, whose case under which I have related in Pages 123 and 124, and that treated in the same manner, was productive of no better effects; after a continued bad state of health for some years, attended with violent spasms at times, and such extraordinary palpitations of the heart, and so interrupted and defective circulation, as to give suspicion of a local Disorder in the heart itself, but which were in reality owing to the impure state of the blood indisposed for motion, and incapable, by any ordinary force, of being kept in it, now died suddenly. There being, as I expected, nothing to be observed upon opening the body to confirm the truth of the above-mentioned notion of a Disease in the heart; it being only somewhat distended and enlarged, by its violent efforts to keep such an heterogeneous mass in motion, and support life a little longer by them,

many pregnant Women, and very near being so to many others†.

The Fevers, in the latter end of this season and beginning of Winter, were of an uncommon kind, and attended with very languid efforts, and extraordinary symptoms. The body being oppressed, when cooler weather came on, with such quantities of gross, foul, hot vapours, rising from impure humours internally, as to bring on difficulty of breathing, that required a fresh influx of Air by opening the windows, lest they should be suffocated by those that issued with their breath. Here we see that the heat, as in all bad burning Fevers, remained chiefly within: and this state was accompanied with so great dejection of spirits and such lowness and weakness, such a dead pallor of Countenance and glassy appearance of the eyes, as made the persons affected look more like pieces of wax-work than living subjects. In some the weakness was extreme, and attended with such uncommon nervous complaints, that, though in tolerable strength and spirits while they lay down, they were not able to support themselves when they attempted to sit up, but were ready to drop off the chair they sat on. And these cases happened to young and strong Persons, and were slow in their progress, very obstinate, and long in

† Suffer me to take notice that a silly fashion has been introduced, and prevails with some practitioners, namely the discountenancing and laying aside the use of bleeding in pregnancy even almost under any circumstances — A Woman from the neglect of it and other imprudent conduct, was several times in great danger, from an immoderate flux of blood, in the last months, and would probably have lost her life, had she not been relieved by taking away blood several times, in small quantities, when she grew oppressed, or had returns of the flux. By this method however, with the use of gentle aperients, she went her full time and was safely delivered. Two of these cases however proved fatal: one immediately notwithstanding the extraction of the Child; and the other 3 or 4 weeks after, in consequence of Disorders on the lungs that came on by taking in too much food on a sudden, by way of supporting the Constitution.

wearing

wearing off, sometimes degenerating into a chronic state, and ending fatally. No advantage being gained by the use of Bark, even so used as merely to support them under them; the foul humours being of so crude, or tenacious and inseparable a nature, that the urine had greater paleness, and the Disorder was protracted by the use of it*. Nothing so effectually relieved, not only in Fevers, but also chronical diseases, as gentle continued discharges by the bowels by the use of Rhubarb with saline Aperients, the matter of the Disorder being indisposed to pass off any other way||.

And there were not only slow cases, but also violent ones†: Diseases being now complicated together in an uncommon manner, and following one another in very quick succession§. Burning Fevers during the Winter being often attended with the sore Throat, and even more remarkable, in many instances, for their tardy nature and slow progress, long continuance, frequent relapses, and

* One of these cases, in a young Man of a very impure habit, degenerated at length into an Atrophy, and proved fatal.

|| Calomel was also eminently useful in cases that required it. See observations on the use of aperients in burning Fevers, in my Treatise on the constitution of 1778.

† In one of these, treated with the Bark and Port Wine, an almost total stagnation came on, as in a case, under similar treatment in 1778, which I have related: the feet and legs of the Patient, though a strong young man growing cold, and he being so much reduced as to be apparently dying. He was however brought about by the use of blisters: but not without a mortification seizing the part where one of them was applied, as in the case mentioned, and the separation of a large piece of gangrened flesh. The hair also came off the head, and some of the nails off the fingers.

§ A Woman between 20 and 30, soon after having the measles, was attacked with the scarlet Fever and sore Throat accompanied with the Jaundice.

defect of the crisis, than those of the preceeding seasons†. The scarlet Fever and sore Throat became now very epidemical, even in this cold season, as well as the measles, and small Pox : the first being often followed by a leucophlegmatic habit, and dropfical tendency, as in 1778, and sometimes a remarkable comatose disposition ; and in an instance or two even a tendency to apoplexy itself||, a Disorder now become very common.

In the latter end of this season and beginning of Spring, many were on a sudden seized with violent Disorders of various kinds† : several fell into apoplexies ; and many others died suddenly. This year being peculiarly fatal to old Persons especially* : and more of them dropping off, than

† In a Child who was taken into the Air imprudently soon after the attack of a Fever, upon appearing to be better, the Disease was thereby so confirmed, that after a lingering Disorder of 4 Weeks, it was at length carried off by it. As was also a little Boy, after having eruptions on the skin, and other ineffectual efforts, during an illness of 7 or 8 Weeks continuance. Another rather older, of a very oppressed and foul habit, died after a short illness of only two days : the belly being greatly tumefied, the lips black, and the whole mass of blood in a state of stagnation and putrefaction. A gross Girl 6 years old also narrowly escaped, by the foul humours falling into one leg, though with great danger of an ensuing mortification.

|| A Boy about 10 years old, had an attack of this kind, attended with a full and oppressed pulse, when he was got about after having the scarlet Fever, but it was fortunately attended with convulsive efforts : by means of which, having taken a little Calomel before, and the application of a blister to the head, he recovered.

† A Gentlewoman in the decline of life, died now of a burning Fever, attended with an inflammation in the bowels and liver, and accompanied with Jaundice ; an impostumation being formed in them before death. Several others also had violent inflammations in the bowels in Fevers.

* A Man who had a congestion of humours between the coats of the stomach, with a constant rejection of his food by vomiting, had

than in any year for 50 years past, within the bills of mortality.

C H A P T E R XVII.

Of the Continuance and Increase of the Pestilential Constitution, in 1794.

IN the beginning of Spring were almost continual rains, and no severity of Air; but after these its usual keenness in this season came on, accompanied with strange changes in the atmosphere, and uncommonly sudden variations of

had at length an impostume there that discharged itself the same way: he gradually wore off, attended with a slow Fever to the last. A Man who had a large discharge of blood in his urine all Summer, though above 70, recovered.

Several Persons were in danger of losing their lives this year, by the improper use of cold bathing. One young Woman actually died at Bridgewater, of a Fever with Phrensy brought on by sea bathing. And a Man of a foul habit, who had a slow Fever was very near death upon the first use of it. Two other Persons were attacked on the coming on of cold weather, from such undue repulsion of the humours in foul constitutions, from the external parts to the inward: one of them, a Man, being seized with a violent pain and Disorder in the stomach, with a strong disposition to stagnation; and the other a Woman with complaints on the lungs, that put her constitution to a severe trial, and were long in wearing off.

the wind and weather; there being very cold winds out of the north east, and north west, and even out of the south, and a good deal of rain at times to the end of it, though on the whole remarkable for a continuance of dry weather. — The beginning and middle of Summer were also greatly disposed to drought, in many parts of the Kingdom, any considerable rains being only partial. The weather also was so hot, even in the former, as to raise the Thermometer up to 77. Notwithstanding however this heat, the influence of which was chiefly felt in the middle of the day, the ruling wind of the year, the north east, continually recurred, especially after any rain had fallen, and had a great effect on the temperature of the Air, in the morning and evening; there were also very cold winds out of the north west, as in the Spring.—After this, towards the middle of Summer, the heat, by reason of the drought, was very great indeed, and affected people so much that many compared it to that of last year; though the Thermometer, by an observation regularly and fairly taken, never rose with us above 78; which is 9 degrees lower than it did twice last year, in the hottest part of it, and 4 or 5 at other times, while the great heat continued.—When rain began to fall there was a great deal of it, and a great closeness in the Air afterwards; and then very cold winds out of the north west, even at this time of the year, and also out of the north east with rain. Which continued also, at times, to be the case afterwards; and, by reason of the sudden change from great heat, to a cool and damp state both of the earth and Air, had a great effect on human bodies. For the heat of Summer had, by no means, such an effect on the declining year, as that of the last; great rains falling 3 months sooner, that is in the beginning of September: whereas they did not last year till the beginning of December.

In consequence of the very wet, and then cold and dry, and very variable weather in Spring, many, especially Children, had slow, obdurate, and ill-conditioned Fevers, of long continuance, and subject to frequent relapses*;

lapses*; especially upon taking in Food too hastily after them, or going out during their continuance†, or too soon after they were gone off, into the Air. The Influenza also, which, as I have said, had constantly returned, in more or less degree, every Spring and Autumn, since its first setting in in 1782, became very epidemical; vast numbers of Children, in particular, being affected with it; and it often, as well as Fevers without complaints on the lungs, proving fatal among them. With these Disorders the scarlet Fever and sore Throat, Small Pox, and Measles were prevalent as in the preceeding season; several Children having tumors of the parotid gland, and others of the face and neck, that subsided and went off without suppuration, before an attack of the latter. And among other Disorders, attacks upon the brain without febrile efforts, and sudden total stagnations were very common, several falling into apoplexies§, or dying suddenly; whilst others who had strong tendencies to such stagnations, and extreme weakness under them, with great difficulty recovered*.

* Two young Women in declines were taken off by burning Fevers; one of them in 24 hours, by a relapse that came on about 3 Weeks after the going off of the Fever.]

† Two Children in one Family, and one in another, dropped off by these means: the Disorder being so radically fixed in them by the constringing power of the Air, that all medical methods used afterwards, availed nothing.

§ A young Woman in the end of Spring or beginning of Summer died of an Apoplexy.

* A middle aged Gentleman of no very strong habit had an attack of this kind in the Winter; the drawing of blood away in it being prevented by the fortunate coming in of a Gentleman of Judgment, which would probably have been attended with fatal consequences. An old Woman of 70 also was attacked in the Summer, and appeared to be dying, but upon the application of a Blister she grew better and had a burning Fever with delirium after it; from which, though the Disorder hung long on her, she at length recovered.

As to the treatment of these slow Fevers and tedious cases so subject to relapses†, and wherein natural efforts are so languid, and the foul humours so difficult of separation, the necessity of waiting duly on them, unless proper and safe methods can be thought of effectually to shorten them, is evident enough; as well as the impropriety of weakening too much by large evacuations of any kind, in the beginning of Disorders, that, by reason of their long continuance, require a good share of strength to enable constitutions to weather them, and bring on tolerably good crises and discharges of them. And as to contracting the vessels in the beginning of Disorders, by the use of astringents, under a false notion of curing them, or strengthening weak habits, and thus confining in the tenacious matter, that is not well disposed to pass off even when they are more open, the vanity of these attempts, and the ill effects of such practice, have already been abundantly shewn. Nor, on the other hand, is a farrago of attenuating and irritating medicines, too hastily used and too long continued, nor the immoderate use of blisters and free use of Wine in the beginning of Fevers, more especially those of the burning kind, though they be sluggish ones, attended, in numerous instances, with more beneficial effects. For, by such means, the finer juices are dissipated, that should support the Patient in the decline of a Disorder, and enable the constitution to compleat its efforts, and bring on a salutary termination of it. But this is not all—by such violent and precipitate methods, the powers of nature are on a sudden raised, and the constitution put upon efforts to discharge morbid humours, that ought to undergo a more regular process of preparation, and in the simple course of nature often do so, and are, by no means, in a condition to be so suddenly and hastily discharged. And herein the Hippo-

† These relapses fully declare the same things, that the rest of our observations do; namely the increase of the Pestilential Constitution and its effects upon foul humours in the blood, and the frequent inseparability of them when grown very tenacious; whence the return and frequently fatal termination of the present burning Fevers.

cratic method of treating Fevers, which consisted chiefly in waiting upon nature, and duly regulating her efforts, reducing them when too violent, and supporting her when necessary, notwithstanding some improvements that belong to modern practice, appears to great advantage, and is in some cases eminently superior. For this method, notwithstanding its defects, always had a certain end in view, namely the completion of the crisis: whereas modern practice, so far from having an intention of this sort, or following, at least in general, this method, seems, at least in part if not almost totally, to have discarded the notion as absurd.—But let us be careful what we are doing, for there is no digging up and demolishing foundations laid so deep in the very nature of things, and of true Physic; no reversing the laws of action by which they were originally appointed to move, and whereby they still continue to be bound by the almighty creator. Attempts may be made to cure Fevers by hasty and irregular, irritating, hot, or astringent methods; but every good practitioner, who has any observation in him, must know, that after all this, the crisis must be waited for and obtained before health can be well restored. Not that I mean hereby to deny that proper means may not be used, and efficacious ones too, not only in the beginning but progress of acute Disorders, that directed, by good judgment and a knowledge of their causes, may greatly contribute to lessen them, and put the constitution into a right way for their more speedy and due discharge. But to return—

When the heat of the Summer came on Fevers began to assume a more malignant nature, and were frequently mortal†. They were now often accompanied with the fore

† Several Persons died of these Fevers at this time, and particularly a Boy, with all the signs of putridity and corruption even to blackness.

A Man also who had been travelling in a Coach, was seized with a Fever attended with so great putrefaction, that the whole body turned black, except one arm, and swelled to an enormous size.

Throat

Throat as the scarlet Fever, and sometimes inflammation of the lungs, and had, in numerous instances, the same dropfical tendency afterwards as after that Disorder, they evidently partaking of the nature of it. They particularly affected those who drank freely of Port Wine; which was so far from preventing these *burning*, falsely called *putrid* Fevers, that they came on in such with great internal inflammation, an increased violence, and higher degree of malignity. There were also at this time dangerous fluxes during Pregnancy†.

During and after the rains that came on after the hot weather towards the end of Summer, slow Fevers became very prevalent as in the Spring, being in some instances fatal. They frequently came on, and were attended with Diarrhæas and complaints in the bowels, in which the stools were quite black, and highly putrid; Disorders now very common without Fevers, those who had profuse discharges this way, being greatly relieved by them; it being necessary in some other cases to give a little Calomel, where the strength would bear it. They were attended with great weakness and lowness, not only in these but other cases, in which the bowels were in a more confined state: there being sometimes bad Disorders of the stomach in the latter, and even tumors of it to be seen externally; neither were these slow Fevers so easily and well got off in these as

§ A Gentleman after one of these Fevers, did not recover health, though he took Calomel, till after a spontaneous flux by the bowels attended with great internal heat, so indisposed were the tenacious foul humours to pass off.

† A Woman, though greatly reduced by one of these fluxes, was saved by the extraction of the child in the 8th month, with the use of a bandage, at that time, gradually tightened, and the taking of a light decoction of the Bark acidulated with spirit of Vitriol afterwards. The flux came on by using violent exercise in a very hot day, with the imprudent neglect of losing any blood all the time of her pregnancy.

in the former.—But there were not only slow Fevers at this time, but also violent ones with Phrensy§. And when the cold winds began to blow after the rains, the Influenza returned†, and the Croop also made its appearance: a dangerous Disorder that by Inflammation and tumor in the internal parts of the Trachea, or inspissation of the tenacious humours there separated, soon puts a stop to respiration, if not speedily relieved by bleeding in the Jugular vein, or by the application of leeches, the use of vomits, blisters, and other proper remedies‡.

In the latter end of Summer not only Fevers* with profuse Diarrhæas were epidemical, but with the Dysentery also, in some parts of the kingdom. And on the attack of them, some had a descent of the morbid humours into the legs and feet, with discolorations of them even to blackness, that relieved several; while others had most violent pains in the Face. The very intemperate heat of the atmosphere for two Summers together, last year and this, had rendered foul humours in some bodies so extremely tenacious, that

§ Even a Child had now a violent burning Fever of this kind.

† About this time a peculiar kind of Fever with sore throat, that generally came to its height in about 3 days, and akin to the pestilential Influenza of 1782, was prevalent at Banbury in Oxfordshire, and by going through whole families appeared to be infectious. It was not often fatal, but people were greatly reduced by it in a short space of time, and when they got abroad, had an uncommonly pallid look, as after that Disorder.

‡ The Boy, about 3 years old, who was now affected, recovered, but a Child of the same family by the Mother's side, died of a complaint like it some years ago: so that there is some reason for suspecting, that this Disorder, like many others, may sometimes arise, in some measure, from an hereditary foul habit.

* Violent Fevers now not only affected human bodies, but also those of the brute creation.

there

there were some very obstinate and uncritical cases at this time, that hung on long, and were, in several instances, at length fatal, or degenerated into dropical Disorders that in the end were so. And as to other chronical Diseases, there were, in particular, many obstinate Jaundices* and other Disorders of the liver, and also many apoplexies, and instances of sudden death in this season, as there had been in those preceeding||; this year being remarkable for the uncritical nature of, and want of action in Fevers, as those of 1783 and 1788 had been for the increase of it.

As to the nature of the present extraordinary slow Fevers, as well as those in some years preceeding, accompanied with such sluggish action, comatose symptoms, dropical tendencies, and unfriendly and often fatal effects, I have already shewn with Hippocrates that pestilential constitutions are capable of producing Fevers, not only with most violent, but also by relaxing the solids, and making the humours tenacious, the most languid efforts. For the only true sedative powers, so much now talked of and so little known, are the want of pure and wholesome Air taken in, to set the moving powers at work, and of its most invigorating and bracing qualities, to keep up proper strength in them; joined with the pernicious influence of the corrupt effluvia of putrefying animal fluids, tainting the animal spirits, and destroying the first springs of motion in the nerves themselves; and with the ill effects attendant on increased tenacity of all the humours, and want of due preparation of the fluids, even the animal spirits themselves; tending therefore to stagnation, unapt to motion, and not well disposed to be moved, and the want of fresh supplies

* A Gentlewoman about 40, of a very scorbutic habit had now a confirmed Jaundice disposed to terminate in dropsy: she died however of a burning Fever in the end of Summer, with the Jaundice still upon her—Another recovered by the use of James's powder taken in small doses, after Bath waters had failed; her case being attended with a slow Fever arising from tenacious juices, the cause also of her Jaundice and obstructions in the liver.

|| It is worth observation here, by way of caution to others, that two young Men died this Summer soon after bathing in the river when they were hot—and also that a young Woman after the first use of sea bathing was seized with a Phrensy.

of fine juices necessarily arising from them. Things most evidently pointed out in the feeble efforts of the present Fevers, and the highly putrid state of the foul humours discharged; in the extraordinary coldness on the attack of them so often noticed; the remarkable comatose symptoms in them, and after the scarlet Fever and sore Throat this year; the Apoplexies now so prevalent, and numerous instances of sudden death†. And declaring the increase and progress of the present pestilential constitution, as the following translation of the words of Hippocrates does, a very peculiar, and somewhat similar want of action, and disposition to stagnation, in Fevers, though in a greater degree, under that he describes. *Erat autem Februm ardentium constitutio hujus modi. Per initium sopores detinebantur cum stomachi fastidio, horroris sensu febris acuta, neque magnopere sitiebant nec delirabant.—Sub ipsas accessiones oblivio, membrorum exolutio, et vocis defectio contingebant. His quidem pedes summi et manus frigidiores evadebant, multorumque maxime circa accessiones, deinde vero lente nec probe recalescebant*, rursusque ad intelligentiam redibant et loquebantur. Eos autem aut perpetuus sopor non somnolentus detinebat, aut vigilia cum laboribus. Horum plerisque alvus retrimentis crudis, tenuibus, multis turbabatur. Urine multe, tenues, neque judicatorii quicquam eorum neque boni habebant. Neque uliud quicquam in urina affectis decernebat, neque enim rite sanguis e naribus profluebat, neque aliud quicquam eorum quæ abscedere nata sunt judicatione tentabatur, moriebaturque unusquisque† uti fors ferebat*

† They must be far gone in error indeed and under the power of a strong delusion, who cannot understand that the blood, which in the sacred writings is truly said to be the life of Creatures, may get so impure by intemperance, as, with defect of strength in the moving powers, but not through that deficiency alone, to put an end at length to animal motion, and prove mortal to all men.

§ Extraordinary comatose symptoms also attended the coming on of Fevers at Messina in 1784.

* Such lasting coldness was very extraordinary on the attack of Fevers in the years 1780 and 1783. See Notes in Pages 90 and 91.

† The yellow Fever under a pestilential regulation was very mortal this year in the West Indies, and at Charles-town in South Carolina, as it had been last year at Philadelphia.

vago et incerto ordine, p'ærunque circa judicationes||, quidam vero longius producti, cum vocis defectione, nonnulli etiam cum sudoribus. Quæ quidem his qui perniciose haberent contingebant. Quin et similia phreneticis fiebant. Atque hi omnes sine siti erant. Neque phreneticorum quispiam vehementer insanivit, sicut in cæteris usu venire solet, sed ex mala alia quædam et languida in somnum degravatione graviter peribant.,— A dreadful state of Diseases indeed! Exemplified, in regard of the fatality of some Fevers under violent pestilential States, in the great mortality attendant on the yellow Fever at Philadelphia last year. A scene among many others in the present times, so full of misery and distress, as must have greatly affected even those who did not see it, who had not lost the ideas of humanity and the sentiments of compassion for the sufferings of their fellow-creatures, and all the genuine feelings of the human heart.

|| This was the case with a very strong Man : who after three relapses, was affected with comatose symptoms attended with the greatest weakness, during the crisis or discharge of the attenuated morbid humours which came away at this time plentifully in his urine. Under which circumstances, incapable of bearing the force of and weathering so obstinate and long continued a Disorder, he gradually sunk under it and dropped off.

A
RECAPITULATION,

OR

Observations on the preceding Pages.

ONE of the greatest misfortunes that can befall men in the present state, either as Individuals or in society, is the want of the knowledge or of the love of the truth; whether this arises from intractability of mind that renders it averse to knowledge, and almost as incapable of instruction as if a person were born an Ideot, or from pride and prejudice that blind the understanding; from natural incapacity, or a certain sluggishness that enervates the soul, and hinders it from calling forth and exerting its proper powers. Many chusing rather to take things upon trust from others than be at the pains of examination: yet from hence assuming consequence, thinking themselves full, and having all the pride of learning, with little to boast of that is real and substantial, and heaping up pretended science without measure till the mind is overborne. Such unfortunately has been too much the case with the study of the occult sciences, and particularly that of Physic. And a mind thus overloaded with trash, is like a stomach oppressed with gross food which it cannot digest, and a body loaded with unassimilated juices and foul humours that it cannot throw off: the former as certainly bringing on the death of the mind in respect of sublime knowledge, as the two latter do at length that of the body.

Q

Nothing

Nothing however is so apt to lead astray, and confound and bewilder weak minds, as that raging love of novelty, and spirit of scepticism, that are gone out into the world, and become so predominant in the present age. Certainly as rational beings we ought to believe that the foundations of learning were laid long before our own time; and that therefore, be the extent of our knowledge what it may, we are by no means at liberty to reject all that was before us. The wise man justly observed, in his own time, that there was nothing new under the sun: what vain phantoms and unreal images are men then hunting after? And as to disbelief and doubting of every thing, and withholding our assent beyond a due degree, it may be truly said to be the parent of ignorance; since without faith it is impossible to gain any true knowledge, much more in an eminent degree. Pride in themselves, as well as too much confidence in others, have also their share in misleading men in their enquiries after truth, and keeping them in ignorance, as well as want of diligence and application. True knowledge in religion, and also of the principles of obedience, and the necessity of paying it to legal power, is so excellent in itself, and of such consequence to the interests of mankind, and the peace of society, that he who is not sensible of the good effects of the former, is degenerate down to the nature of a Brute, and he who is not disposed to obey, unworthy of the protection of the Government he lives under. He also who does not believe in God, as he has revealed his own nature and mode of existence, cannot properly be said to believe in the true God at all, but is a kind of Idolater. Having however treated of these great branches of sublime science in the preliminary Dissertation, I shall go on to make some observations concerning obtaining true knowledge in Physic, the third great branch of it.

As to systems of Physic in general they have been changeable things, and till one is established on true observation, ever will be changing. As to the present system, a man might as well say that there is no blood in the vessels appointed to receive and carry it, as say that Disease is seated mostly if not wholly in the solids. The idea is idle, whimsical

fical, and imaginary ; and would not deserve a grave confutation, were it not reduced into practice, and productive of great mischiefs. In obtaining physical knowledge in seminaries of learning, young men certainly ought to honour the Professor's chair ; but they are not obliged to adopt all his notions, nor to be followers of a leader and patronizer of a system, or a former and propagator of opinions, for nothing is so fallible as the human mind, and the notions and reasonings of men. And however strange it may appear to some, there hardly ever was a time, wherein wild, and far-fetched opinions in natural philosophy, were more indulged, nor more inconsistent and extravagant theories in Physic framed, than in this age of experiment, and even by sceptics themselves : shutting out the light of knowledge at some of its proper entrances, naturally producing ineffectual attempts to let in irregularly at others. Such things are not then to be taken upon trust ; they must be brought to some test ; the infallible test of observation and experience, the strict scrutiny of unprejudiced and exalted minds, and the severe and rigid examination of unbiassed reason.

Diseases of the solids most undoubtedly there are : but so sure as every particle of food we take in, has a principle of viscosity or nourishment in it ; so surely by an intemperate use either of solids or liquids, or both, will such particles abound in the blood, and by not being well assimilated, nor duly carried off, under such irregularity increase and accumulate, till they load the vessels, and oppress the body, and by constant circulation, and the continued action of the solids upon them begin to acquire an heterogeneous and tenacious nature, observable enough in the blood taken from foul habits, in a fizy and tenacious skin, or coat covering the coagulum, and in a yellow, viscid and impure serum. Whence an indisposition to free and due circulation ; occasioning, among other ill effects, the cold fits, and strong tendencies to stagnation preceeding Fevers, as well as the increased circulation, and sometimes violent Disorders and efforts afterwards. But this is not all : viscosity is always the parent of acrimony. And when the humours have attained

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tained this state of foulness, or a worse, they, with other occasional causes, become productive of Diseases, and also lay the foundation of those, which by being transmitted are hereditary, and generally on the increase. Now when under such circumstances, a pestilential state comes on, and dissipates the finer juices, what must be the condition of those bodies, be the solids weak or strong, wherein such foul humours abound? Properly ventilated the vessels cannot be by Air, were that which is pure to be had, nor the impure juices diluted well by water, till some of them are evacuated, and their tenacious parts attenuated and discharged. Hence from violent action to support life and motion, often necessarily consequent to the above mentioned tendency to stagnation, and increased circulation arising from the stimulus of hot and putrid vapours, the heat, where there is strength to support such action, frequently becomes excessive in some bodies, whilst, when it is defective, corruption proceeds rapidly in others: and this, as far as it goes, is the case of those in burning Fevers. And when putridity does not come on so fast, cases of both kinds, especially the latter, degenerating become long and obstinate, when the foul humours are very vitious, and difficult of separation. Often ending at length in mortal consequences during the febrile efforts, when crises are partially or totally defective, or through the dropical tendencies, or other chronic Disorders that follow them. Such a state stands in direct opposition to a state of health; which consists in pure juices properly ventilated and diluted, and the strength of firm and active solids, by good digestion, assimilation, secretion, and excretion supporting, through temperance and moderate exercise, an equilibrium, and regularity of circulation.

As to pestilential constitutions, strictly speaking it is difficult to say, that for a long course of years back, nay perhaps even for ages, any single year has been free at all times from a tendency to a pestilential state. For an Air that is capable of bringing on the small Pox, measles, and chin-cough, though only locally, must be strongly disposed to be pestilential, that is to produce pestilential Disorders; it
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being a weak notion void of all truth, that these always take their rise and proceſſion merely from pre-exiſtent infection*. This with regard to the two latter, is evident enough; the Air attendant on them being manifeſtly diſpoſed to favour and promote the riſe and progreſs of them, as in their origin at firſt; as is undoubtedly the caſe alſo, though in a manner not ſo obſervable, with reſpect to the Small Pox itſelf.

Though theſe Diſorders however are evidently of the peſtilential tribe, in order to ſhew clearly the nature of peſtilential ſtates, it will be neceſſary to draw a line of ſeparation, and to diſtinguiſh them from thoſe highly peſtilential Diſeaſes, the Scarlet Fever and Sore Throat, the Spotted Fever, with the violent burning Fevers, and other Diſorders both acute and chronical attendant on them, which require a greater force of heat, and a ſtronger power of cold and moiſture, and impurity of the atmoſphere to bring them on, as is the caſe though in a much higher degree, with the plague itſelf.

Now in order to do this it will be neceſſary to obſerve, that all theſe violent peſtilential Diſeaſes are attended with ſuch high inflammation, ſuch intense heat, and ſuch a degree of intolerable pain as gives them the nature of plagues—that, except in caſes where a ſudden diſſolution of the humours happens, and death ſoon comes on, the blood generally is very ſiſy and tough in the beginning of violent peſtilential Fevers, even ſo much ſo as ſometimes to enable perſons affected with them to bear large evacuations by bleeding, provided this be done on the very riſe of the Diſorder, before the putrid diſſolution, that ſoon comes on in foul and loaded habits, takes place†; circumſtances that do not happen

* How idle then muſt be the opinion, which ſuppoſes, that by the general practice of inoculation, the ſmall-pox might be by degrees annihilated: ſince it is well known, that from the bad diſpoſition of ſome bodies, the worſt kinds of that Diſorder will ariſe in them from the beſt matter, and the ſlighteſt degree of infection.

† Many caſes however, I have already obſerved, would not bear the repetition

pen in such putrid Fevers, as those existing from about the year 1750 to that of 1778; wherein the blood was in general loose in its texture, and its crisis broke, and the humours almost always in a state of dissolution from the attack of the Disorder; going off hastily in a putrid diarrhæa even in its beginning; and wherein therefore frequently the loss only of a small quantity of blood could not be borne—and, moreover, that by reason of this very impure and tenacious state of the blood and humours, the latter are extremely difficult, and often wholly incapable of separation; occasioning hard and imperfect crises, and the total want of them. Fevers from hence becoming lingering, slow, and obstinate, and of long continuance, especially in weak habits; disposed to make transitions into, and produce other Disorders attended still with febrile efforts; and yeilding to nothing at last but a total dissolution of the morbid matter, when nature has strength to bring this about by external abscess in some of the best cases, and by internal ones in the worst; and degenerating at length into chronical Disorders when constitutional strength fails. So totally different are Diseases thus circumstanced, from those happening in a pure air, and under an atmosphere of a more benign, temperate, and regular nature, and so dreadful, grievously afflicting, and often mortal under pestilential states.

Now in treating of these, it is first to be observed, that pestilential constitutions of all kinds naturally coming on, in general have had preparatory states, not excepting that productive of the plague of Athens. The vast numbers

tition of bleeding under the present constitution, without manifest disadvantage. The right use of it therefore requires a considerable degree of sagacity in the Practitioner; a good knowledge of the nature of a case, and foresight of what the Patient has to undergo, compared with the degree of strength he has to carry him through it, and what will be the probable event of it. For in a long case, he who reduces the Patient too much in the beginning, acts not the part of a prudent Physician, as he thereby renders him incapable of weathering the Disease, and bearing up under a long Disorder.

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crowded together in that city in the Summer, may indeed be justly considered as a great cause why that pestilence raged in so peculiar a manner there. But there was a pestilential state of the air at that time, that had before this affected several countries; been in Persia, Lybia and Egypt, and reported to have began in Ethiopia, before it gradually entered Greece, and this remarkable plague, from other concomitant causes, fell on a sudden on Athens, as we are informed by Thucydides, who has given us an account of it. And moreover, he informs us also, with a degree of accuracy equal to that of a good medical writer, that the very year before it broke out, through a peculiar state of the air no doubt, had been more than any other remarkably free from common Disorders, and consequently from their salutary efforts; and therefore disposed to accumulate the matter, and hoard up the seeds of Diseases, as was the case also under the putrid constitution preceeding the present; than which nothing is more inclined to increase the violence, and ill effects of consequent or supervening pestilential states.

Three peculiar states gradually increasing in violence also preceeded the local pestilential state of Hippocrates, and are described by him in the first book of his Epidemics. This circumstance however, has not been well attended to by many of his commentators, nor the peculiar dependance on, and connection of the following ones with it shewn, nor that of the first and third with the second. So far from it that Galen is said to have disputed the authenticity of the title to the third book. And our countryman *Friend* was so far from having any idea of this mutual connection and dependance, or that the Fevers described in the second and third books were any other than common kinds of them, that he has selected the first and third and placed them before his Commentaries on Fevers, happening under a constitution of a quite different nature, thus confounding the whole. But whoever reads the preceeding pages with ability and attention, will find therein a description, upon a larger scale, of the gradual approaches to,

and the breaking out and progress of a pestilential state, the plain subject matter of the Epidemics of Hippocrates.

Pestilential Constitutions likewise in general come on in the Summer, especially in hot and dry ones*, and that at first locally: as was the case with regard to the breaking out of the Scarlet Fever and Sore Throat, and the appearance of burning Fevers and numbers of chronical Disorders, in 1778. The pestilential state, which Hippocrates describes also came on at first locally in the Summer. And though there were great rains in the beginning of it, there was an hot, dry, and foul air afterwards when fevers raged. After long continued hot and dry weather in Summer, there are generally large quantities of rain in the decline of the year; which, with succeeding heat in the Summer following, confirm the constitution, increase its power, and make it general. In the beginning of the present however

* It is remarkable that the first plague affecting human bodies, miraculously inflicted upon the Egyptians, was also brought on by an hot, dry, and foul state of the atmosphere, signified by both its cause and sign, the scattering of ashes of the furnace into the air, which, by divine creative power, became small dust in it, through all the land of Egypt. This plague being immediately preceded by a murrain among the Cattle, as that in the Grecian Camp before Troy was, according to Homer's account, by a pestilence among the Dogs and Mules. The boil with blains appearing to be akin to the carbuncle of Hippocrates; and also to the unsuppurating pestilential boil, attended with a fiery redness and hardness, almost equal to that of a stone, requiring great length of time before it can be resolved into matter; and accompanied with extreme pain, restlessness, and slow fever, and frequently fatal; as well as to that of the putrefying and gangrenous kind. All of them, though that in Egypt was miraculous and extraordinarily violent, being the effect of an hot intemperature, wherein all natural healthful moisture is evaporated and dried up; a similar change, from the same causes, also taking place in the humours of the body; the finer parts of them being unduly dissipated and carried off, and the remainder consequently left in an heated, tenacious, and thickened state, especially in bodies loaded with foul ones.

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the drought continued through the Winter, and also the succeeding Summer, with such an augmented force of heat as not only made it general, and increased the violence, and mortality of burning Fevers, but also connected them with a Dysentery of the pestilential kind, that destroyed many thousands of the French and Spaniards, and appeared among us, in a very peculiar manner, in the cold and raw weather of the Winter afterwards.

Besides the appearance of, and great mortality attendant on the Scarlet Fever and Sore Throat, and burning Fevers, at first locally in the hot Summer of 1778, and the general diffusion of both through the kingdom, and much increased force of the latter in the still more intemperate one of 1779, and their union with the pestilential Dysentery, there was under my own observation, an instance of a kind of pestilential boil, attended with a slow Fever that proved mortal. And thus far the force of violent heat in two successive Summers, was concerned in fixing the present pestilential state. But in and after the cold Winter following the latter, a quite different power became predominant in the atmosphere; the Spring and Summer of 1780 being as uncommonly cold†, as the two preceeding Springs had been remarkably warm, and the Summers intemperately hot. *Et sub anni declinatione superveniebat autumnus obscurus, nebulosus, cum aquarum abundantia*, as in the pestilential consti-

† It perhaps may seem extraordinary, and appear a new kind of doctrine, to reckon cold among the causes of pestilential states. It is a fact however founded in observation and experience, and an accurate knowledge of the causes of Disease in general, that extreme cold is often concerned with heat in producing, and increasing the violence of some pestilential Disorders. For nothing more compacts tenacious humours than its action, or increases their putridity than long retention and confinement by it. In the chincough, a disease that is brought on by, and always prevalent in a cold air, the effluvia of foul humours long retained under that Disorder, will grow at length so so pestilentially putrefactive, as to communicate it by the breath.

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tution of Hippocrates. Fevers becoming obstinate, uncritical, and subject to relapses, by the power of the former; and by that of both, attended with an uncommon degree of coldness, lasting sometimes 3 or 4 days, on their attack, and extreme putridity in the termination of those that ended fatally. The joint power of them stamping an image or strong mark on Disorders, observable in a remarkable heaviness of the eyes in the Fevers of the rising year 1781, that has been characteristic of them ever since.

After this obscure, cloudy, and very wet Autumn, and great falls of snow in Winter, and much more rain in that season and in Spring, there were great quantities through great Summer heats in 1781. Which with uncommon changes in, and a most variable state of the atmosphere, and a complication of all kinds of bad weather, raised Fevers to an high pitch indeed; there being also, through a very impure and dissolved state of the blood, discolorations sometimes in rheumatic Disorders even to blackness. Among multitudes of acute Diseases the pestilential Ague also made its appearance in the eastern parts of the kingdom, and was productive with others of a great mortality. There was also a great increase of consumptive, dropical, cancerous, and other chronic Disorders—Thus after the severe cold of the Winter of the latter end of the year 1753 and beginning of 1754, and a continual succession, according to the observations of Mr. White, of wet years from the latter to 1764 inclusive, which brought on and continued a state, from the sudden dissolution of the humours in the beginning of Fevers that rose in it, properly enough called putrid—After the very cold weather in February 1768, and that excessively cold and tempestuous in April 1770, and the large quantity of rain that fell in this and the following year, which raised these Disorders near their greatest height—After the still greater quantities in 1774, and the severe weather in December following, and the excessive heat that began now to take place, and came on after it in the Summer of 1775; the extreme cold again of January 1776, which while it lasted almost equalled that in 1739—40, the Thermometer sinking 2 degrees below Zero, and
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the hot Summer that again followed this, and particular the extreme coldness of the Summer of 1777, all of which were more immediately preparatory to the pestilential constitution; and by compacting, heating and confining foul humours, that in some unhealthful bodies, had been accumulating during the putrid state, rendered such liable to be affected by it—After all this, I say, and by means of it, and succeeding great heat in the Summer of 1778, did the Disorder called the scarlet Fever and sore throat, break out locally in an hot town in the center of England, as a pestilence of a different and more violent kind, did in the hot town of Cranon in Theffaly, in the time of Hippocrates; and by the united powers of excessive heat, cold, and moisture, was it increased and made general, and at length gradually confirmed. Preparatory states we see this had and so had his. And the increased violence, and uncritical nature of Fevers, attended with great dejection of mind, in the last of the three states he describes, with the vast number of Disorders, both acute and chronical, under it, were the natural forerunners, and sad preffages of it. His constitution also became general as this did: and so much of the rise and confirmation of a pestilential state.

As there had been two extremely hot Summers together in 1778 and 1780, so was the obscure and very wet Autumn repeated in the latter end of 1781, there being continual rains again through the Winter, and also larger quantities through Summer heats in 1782, than in the preceeding year. The hot weather however in this was often interrupted by returns of severe cold, the air having frequently great keenness even in warm weather. But the Spring in particular was so remarkably inclement, that it brought on a pestilential influenza, or peculiar kind of plague, that spread on a sudden through all Europe; being so exceedingly rapid in its progress, that millions of people were ill at once, and of so general and extraordinary a nature, as I believe, medical history hardly affords a parallel instance of. It was very fatal in the north of Europe, but not attended with any very considerable degree of present mortality with us; though it often laid the foundation for it in future

ture, great numbers dropping off in consumptions brought on by it, and of other chronical Disorders consequent to it, in the decline of the year. This year and the last, tempestuous winds became very predominant : whereby the power of a cold, raw air was applied with much more force to the body, and had greater effects upon it. Which joined with the ill ones attendant on a moist, foul, stagnant and unwholesome state of the air in Autumn, arising from the vast quantity of rain that fell in the Summer, greatly increased the malignant nature, and destructive tendency of burning Fevers. Made them uncritical, and the tenacious humours so intractable, and difficult of discharge by the common outlets of the body, that impostumations began now to form in their decline : these and eruptions externally being the only salutary means that afforded nature relief in many cases, and prevented their fatal termination.

Under these circumstances of their increase, the cold weather in the beginning of the year 1783, raised them to such an height, that Phrensies came on in them. And in the hot and dry weather of the Spring and Summer afterwards, they became of a nature so uncritical, and the morbid humours so difficult of separation, that from the irritation occasioned by them, and the hot acrid vapours arising from them, there were several instances of a strong tendency to Tetanus, and locked jaw in them : they being also often accompanied with other uncommon symptoms, and horrid terrors. Also when the rains fell, after the remarkable hazy atmosphere, that obscured the sun in the beginning of Summer, burning Fevers attended with Diarrhæas, and the Dysentery, became epidemical through the kingdom, as they had before this fell on the French and Spanish Fleets, when they lay before Plymouth, in 1779.

The extreme severity of the Spring of 1784 brought the pestilential Ague, which had before raged in the eastern parts of England, into, and made it epidemic in the center of it : burning Fevers with rheumatic Disorders, affection of the head, lungs, and bowels, and all the other tribes of Diseases, that arose in and since the year 1778, accompa-
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nying them, and not even the scarlet Fever, nor any other disorder, having even gone wholly off.

In the cold, foul, variable, and sometimes hot and close weather in the Spring, and moist, stagnant Air in the Summer of 1785, agues, intermittent, and continual Fevers were reduced into a still worse state. The latter being attended with great languor, and dejection of spirits, and very fatal in close situations, and large Towns, and the two former so increased in violence, as often to have fatal terminations; the morbid humours having, through the power, and continuance of the pestilential state, acquired so great a degree of tenacity, as not to be separable frequently but by the glands of the bowels.—And in the latter end of the year, burning Fevers with Diarrhæas and the dysentery, were very fatal. Great numbers of Disorders accompanying the constitution of this year, under an increased degree of violence and malignity; and people on their attack, being sometimes subject to violent hæmorrhages, from the great accumulation, and high rarefaction of the foul humours, and to relapses, from their vitious nature and want of discharge. Sudden deaths were also among the other unfriendly and violent effects of this dreadful state.

The intemperature and ill effects of 1786 were similar to those of the preceeding one, under a still increased degree of violence; burning Fevers being now often attended with phrenetic symptoms, and not going off without impostumations in their decline, as was the case likewise, in some instances, the preceeding year.

As to the constitution of 1787, consisting chiefly of most foul, raw, wet, warm, and close weather, for the most part out of the South, with frequent interruptions from cold, and a most variable state of the atmosphere, Disorders, arising in it not only acquired a greater degree of violence, but began to follow one another in such quick succession, as to seem complicated together. Burning Fevers in particular, being now very general, and frequently accompanied not only with external discoloration, but gangrenes; and being
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not only in these but other bad cases, often suddenly and unexpectedly mortal. Others ending not only in outward but inward impostumations, in some instances, among those that recovered, many of the pulmonic kind however terminating in a confirmed tabes. Many dropsies also were brought on by this foul and moist intemperature.

In 1788, the severity, dryness, and harshness of the Spring, the very hot or cold, wet, and mixed weather in Summer, and the great variableness of the air, raised burning Fevers to so great an height, that the head was often attacked in them with violent Phrenitis. The vitiated state of foul humours in the blood, confirmed by this intemperate condition of the atmosphere, and the great accumulation of them from the variable state of it, undoubtedly brought them to this pitch of violence; the bodies of those who were thus attacked, being so oppressed by a retained load of foul humours, that before this extraordinary affection of the brain came on, they were usually seized with violent pain attended with obstructions in the bowels, and sometimes diarrhæas, upon the very rise of these Fevers. Most of these causes came on in the decline of the heat of Summer, and coming on of a cooler state of the air in Autumn, when the rarefied humours became more confined, and also disposed to putrefaction. The difficulty of their discharge by the subsequent efforts of Fevers, where great part of them was not prudently carried off by the bowels in the beginning, rendering them not only in this manner violent, but by reason of the coming on of the cold weather in Winter, in some cases also very lingering and obstinate.

The year 1789, by its inclement coldness, and intemperately dry or wet, and very variable state, was peculiarly remarkable for relapses, or returns of Fevers, taken notice of by Hippocrates long ago, as well as for the number of Apoplexics that happened in it, and instances of sudden death, even among young persons. In the moist, foul, open, and stagnant state of the air in Autumn, and Winter, the measles

Des also became epidemical, and uncommonly fatal in close, large towns among children.

In the cold, tempestuous, and wet weather, and foul, and sometimes stagnant state of the Air in the Spring, and Summer of 1790, the Influenza and Chincough were prevalent, and burning Fevers were attended, even in these early seasons of the year, with Diarrhæas, high putrescence, and great debility and lowness of Spirits. And in the very wet, changeable, and open weather of the succeeding Winter, the small Pox of a bad kind were epidemical through the kingdom, and attended with great mortality, as the measles had been in such kind of weather in that preceeding.

In the inclement, raw, tempestuous, wet, mixed and very variable weather in 1791, burning Fevers appeared in a still more malignant form; being attended with grievous sickness at the stomach on their attack, and accompanied with the sore Throat, delirium, phrenzy, and a train of bad symptoms; inflammations in the viscera often ending in impostumes, as tumors formed on the surface of the body had some years ago in external ones, the foul humours being now determined in Fevers to the internal parts instead of the outward. The scarlet Fever and sore Throat also was epidemical in several places, even in the Winter, and also the dysentery. There were also many apoplexies and instances of sudden death, under this very inclement and changeable state.

In the year 1792 there was a still farther increase of the coldness, wetness, and tempestuous state of the weather, and changeableness in the atmosphere; the decline of it being also most uncommonly foul. In consequence whereof, after a dreadful chincough in the Winter, fatal to numbers of children in several parts of the kingdom, the burning Fevers of the rising year were often attended with phrenesies, and frequently mortal; the tendency to stagnation in the foul humours being so great on their attack, that some persons were affected with a sense of coldness lasting for several days. The scarlet Fever and sore Throat also broke
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out in a violent manner, as on its rise in 1778, and there was so bad a return of the Influenza in the Autumn, as to prove fatal to many. Among the ill effects of this constitution many died suddenly, as in some years of late, their bodies being in a state of high putrefaction soon after death. And among other chronical Disorders attendant on it, were obstinate jaundices, consumptions in persons of all ages, and numerous instances of insanity.

The dreadful year 1793 was preceded by an open Winter as the last; but the weather in it was raw, tempestuous and wet, a cold, raw, and very variable, and foul state of the atmosphere going on through the Spring and beginning of Summer; and after this such great and continued heat coming on suddenly, as had not been known in the memory of man. There being in the decline of the year, uncommonly warm and dry weather the following Autumn; though after large quantities of rain, which at length fell, the Air was cool, foul, and moist, in the Winter afterwards.

In consequence of this inclement, and wet weather, foul and variable state of the atmosphere, in the beginning of the year, burning Fevers came on with increased violence soon after the Winter solstice; being frequently attended with phrensies, and often soon mortal, especially those accompanied with inflammation of the lungs, and to children, among whom they were in a peculiar manner epidemical; being frequently attended with the sore Throat, as the scarlet Fever, and bad ulcerations in the mouth. The Chincough and Influenza were also prevalent with them; and that fatal Disorder the Croop, made its appearance. Obstinate Jaundices accompanied this inclement state of the Winter and Spring, and other chronic Disorders of the liver and stomach. Some had large internal hæmorrhages: there were also many consumptions, and numerous instances of sudden death. Extraordinary degrees of stagnation began now to take place: a fatal instance of one externally seated, attended with an high degree of corruption before death, I have related: and such was the state of Diseases

eases during the inclement state.—When the intemperate heat came on, it was so great, that several Persons dropped down dead in the fields at work ; and the measles became on a sudden, very epidemical, and spread with great rapidity in some places ; being followed by violent Fevers accompanied with inflammation of the lungs, and violent attacks upon the head, that were fatal to some, and hung on long in others. But these things were small, compared with the dreadful effects of the violent pestilential constitution of this year in the western parts of the world, where under such a regulation, the yellow Fever was attended with a very great mortality.

In the Spring of 1794, the weather was first very wet, then very cold and variable ; in the beginning and middle of Summer very dry, and in the latter intemperately hot, though not in so great a degree as last year ; and in the end of it and the Autumn, cloudy, excessively wet, tempestuous, obscure, gloomy, and foul, there being a kind of repetition of *autumnus obscurus*, &c. the Fevers through the whole year being obstinate, slow, and ill-conditioned, and subject to frequent relapses. In the Spring the Influenza returned, the Scarlet Fever and Sore Throat, Small Pox, and Measles, being also prevalent, as in the preceeding season, the Winter, and there being many apoplexies, total stagnations and sudden deaths, both in this season and through all the year.—In the heat of Summer, Fevers were still more malignant and mortal ; being frequently accompanied with the Sore Throat as the Scarlet Fever, and subject to the same dropfical tendency afterwards. And when the rains fell in the latter end of it, they were attended with such putrid diarrhæas, that the stools were often quite black ; Disorders also very common without them, as well as obstinate Jaundices, and other bad Disorders of the liver and stomach. Slow Fevers were now attended with uncommon weakness and lowness ; and there were not only such, but also violent ones with phrenzy. The Influenza returned again at this time, and also the Croop : and somewhat later not only diarrhæas were epidemical, but also the dysentery in some parts of the kingdom.—In the Autumn the Scarlet Fever and Sore Throat appeared again, and Fevers of all kinds, in this very wet season, were sometimes attended

attended with an uncommon sense of coldness through the whole Disorder; but nothing was so remarkable this year, as their sluggish nature in general, and the want of proper action in them. At this time Diseases were so mortal at Hull, especially the Scarlet Fever and Sore Throat among Children, that by accounts in the Papers, above an 100 of the latter died in the space of a month*. Such was the very extraordinary, unfavourable, and even fatal state of them with us: but the force of the violent pestilential constitution of this year, fell chiefly on the western parts of the world; where the Yellow Fever, under such a regulation, brought on again a very great mortality. But in the more intemperate and fatal one of 1793, besides what happened at Philadelphia, we learn that a Fever similar to it in all respects, destroyed in the province of Yucatan, belonging to the Spaniards, 50,000 Persons.

Thus after a cursory review of the principal parts of the foregoing description of the state of the atmosphere, and its effects, in the several successive years of the present pestilential constitution, we not only see its rise, but are able to take in, as it were at one view, and mark its gradual progress, variations, and increase, from its beginning to the present time. Nor if we have any observation or reason in us, can we be ignorant thus informed and led on, that intemperate heat dissipates the finer juices, and thickens and renders fizy viscid, unassimilated humours in the blood, nor that inclement cold compacts and confines them; nor that tempestuous winds apply the power of both, with greater force to the body, increasing thus their ill effects; nor that a moist, warm sultry, and stagnant air, makes such heterogeneous fluids, rarefied by heat, and confined in the vessels by cold, disposed to corruption. Let be remembered ever then this truth great in physic, that a pestilential constitution renders a viscid lentor acquired by intemperance, and taking in more than the digestive faculties can duly prepare, and the power of the vessels sanguify, thus tenacious, and makes hereditary scorbutic matter of a similar but worse nature, that was acquired in preceding generations originally in the same way, still more tenacious and

* There were many bad puerperary Fevers this year, one of which was fatal, and another near proving so. Many Dropsies also arose, both in children and old persons, during the inclement weather in the beginning of the year 1795.

inseparable by the power of acute diseases from the body. Giving it when accumulated with other more recent gross humours in the vessels, under weak and relaxed corporeal powers, from natural or acquired imperfection, or from impurity of the animal spirits and morbid vapours infesting the nerves, not capable of making strong efforts, circumstances sometimes attendant on the attack of Disorders, but common to the latter end of them, a strong tendency to stagnation and corruption, when it cannot be duly discharged, whereby Diseases become suddenly or at length fatal; as they do also from such impurity undischarged by more violent efforts in stronger subjects. Bringing on thus, as I have said, a very sily and tenacious state of part of the coagulum of the blood, observable in it when cold, and a most viscid, acrid, and impure state of the serous and lymphatic humours; and when the impure humours are by degrees more incorporated with the sounder parts of the blood, inseparability from them; whence not only its stagnation within, but eruption out of the vessels in hæmorrhage, and a most corruptible state of it: matters in the ordinary course of things, chiefly incident to old age alone, and the retention of such foul humours in the vessels, and their long-continued action on them. Nor let this truth likewise ever escape the memory, which the commentator on Hippocrates Galen, Friend our own countryman, and many others have been so unapt to find out and receive; namely that the effect of a more moderate pestilential constitution is that of making all Disorders pestilential ones, they, though greatly increased in violence and malignity, still retaining in a great measure, if not wholly, their usual types and forms. And that it is the nature of a more violent and strongly pestilential one to swallow up as it were, the whole tribe of other Diseases at once*, and bring in the Plague itself in lieu of them. Though if we may safely depend on the bills of mortality, some are said to have died of spotted Fevers and other Disorders, even during the great Plague of London itself.

* See Thucydides's account of the Plague of Athens.

In the preceeding Pages lye the substantial principles and great parts of Physic, placed in so conspicuous a point of view, that every man of discernment must see, that the nature and condition of Diseases agree to a pittle with the severall constitutions described, and every particular state of them, not only as they regard observation as laid down by Hippocrates, but also as they respect the fundamental and greater knowledge of the original causes of Disorders, as arising from, and dependant on impurity of the blood and juices, and defect of the strength of the solids general or particular. So that though these principles at times inculcated, are not connected together in one regular system, yet both they, and the practical and other remarks made, correspond so perfectly with the phænomena observed, and are distinguished by such legible characters, that he who runs may read them. What the supreme disposer of things has been pleased to permit was undoubtedly most fit and proper, and the wisest and the best. That the knowledge of the nature of pestilential Diseases and their causes however should have lain involved in such obscurity for so many ages, notwithstanding the light let into this great part of physic with such lustre by the writings of Hippocrates, must ever appear extraordinary to a thoughtful mind; and may justly be considered as the due punishment of that vanity and intractability, that raging love of novelty, and eager desire of worldly interest, which lay such strong hold of, and so infatuate the minds of many; as well as of the want of steadiness, diligence, and perseverance in the pursuit of those nobler objects, that appear worthy of mens attention, and to deserve a more than common share of their notice and regard. Some indeed there are who must be led on, and urged forward, and others that want governing and fixing to a point: in whom the mind is too volatile, and apt to launch out into extravagant, and wild conjectures, to grow eccentric, and set no bounds to its imaginations, especially when through reading bad books, and indulging erroneous and wrong ideas, it is got from home, and its native simplicity has been lost. Let us however follow the example of those generous spirits who are able to think, and not only can but will exert themselves; not be amused with trifles, nor persuaded to sit down contented with vul-
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gar and mean attainments, but seek truth where she may be found, and rejoyce in the love of knowledge; else how can we expect to follow her in her progressive steps, or trace her in her high flights, till we by degrees arrive at the sublime paths of science? It is not because her ways are difficult, but because men will not use due pains, do not exert themselves, nor are steady in their pursuit, that they have not been able to follow her, but have often turned in their course retrograde.—Let us all then cherish the love of the truth in our souls, and beware of the pride of system; which unaided by the force of observation, that faithful guide to rational deduction, has led many astray, and made them desert the right path; laid a stumbling block in the way of knowledge, and barred up the avenues that lead to true physic.

In the infancy of physic Hippocrates manifestly was endued with uncommon powers, and had extraordinary qualifications, to answer the wisest and most benevolent purposes. His name has been had in honour through all generations by all men of true knowledge, and the world always was, and ever will be indebted to him and his writings. The present too general neglect of the study of them has had pernicious effects on medicine, and paying proper attention to them would infallibly rectify the errors of modern physic. They have stood the test of all ages, and have ever been considered as the standard of true observation, accurate description, and just prognostication; a character they have uniformly maintained and ever will possess to the end of time. Any oblique insinuation then, or more open attempt to bring them into discredit, ought justly to be held in abhorrence: and must ever be considered by every friend to truth, and lover of learning and knowledge, as one of the vaineſt efforts that arrogance ever attempted, or the ignorance and folly of an infatuated and degenerate mind ever conceived, nay as bordering on a kind of profanation. But alas! What have not ignorance, pride, envy and malevolence said and done against the greatest benefactors of mankind? His prognosticks have justly acquired the title of a work divine. In them, his epidemics, and other writings, there is such depth of sagacity and solidity of judgement, and masterly strength and

precision, as have been seldom equalled, and with powers short of inspiration, perhaps never excelled.

If then there be such a thing as ancient medicine, if any truth in the observations of Hippocrates, and the best Physicians that have succeeded him, about critical discharges, and the benefits arising from them when perfect, or concerning the transition of Fevers into other Disorders, and their termination in mortal consequences when they are defective and void—if there be, I say, such things as intemperance and impurity of the blood and humours, let us not reject substantial knowledge of these things, and sacrifice the welfare of our patients to an idle notion, and vain imagination; to a novel and heterogeneous opinion that the seat of Diseases lies chiefly, if not wholly in the solids: a wild, far-fetched, and extravagant conceit, that will not agree with the Phenomena observed! A mere dream, that has no existence but in the fanciful brains of those who have imagined it!—If we be men, I say, then let us act as such; and take up the rational and judicious part: not suffer ourselves to be deluded by the airy phantoms, and creations of a day, that will not however bear the light, but after fluttering about for a while, must in a short time utterly perish, and be for ever buried in the obscurity of that darkness in which they were formed. Let it not be imagined however that I blame any one for insisting that there are Diseases of the solids; no, it is for carrying that matter too far, to the utter neglect of the study and knowledge, nay to the total exclusion, as it were, of all belief of Disease in the fluids, putting thus a part, and that much the lesser part for the whole. If the foundations of physic are thus broken up, and its principles subverted, the whole art must fall into ruin with them; become like a desolate and uninhabited country, wherein the known land marks are removed, and every thing lies in confusion and Disorder. Let as much true physic be added to the present stock as may be, but let there be no taking away from that which is ancient and established, and has stood the test of ages. It has ever been the bane of physic, that those who have studied it have not had patience and perseverance to proceed from things known to those which were unknown, but ever and anon some enterprising genius's have started up,
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and set about spinning and framing fine systems out of their own productive brains, which being inconsistent with observation, have all dwindled away, and been laid aside in their turns. This however, I need not say, is not the way to arrive at the full knowledge of so abstruse a science as that of physic; experience has shown its fallacy, and the trial of all ages. Whatever degree of irritation, spasm, or even convulsive effort itself at any time comes on, arises chiefly from oppression and distension of the vessels by a load of viscid humours, or the stimuli of those that are hot, impure, acrid, or pestilential; especially when acting upon solids often originally weak, or by reason of age or sex naturally lax and delicate, and therefore disposed to accumulate impure humours, and also less capable of bearing well their ill impression; whence children, young people, and women, are most subject to nervous and convulsive disorders. Even when the mischief lies deep, and is seated in the intimate recesses of the nervous system itself, the effluvia of foul humours, and impure animal spirits, are often, nay almost always, radically at the bottom of the disease, even when the solids themselves are in an irritable state, and concerned in increasing those extraordinary disturbances that arise in it; and this even in those very cases, wherein convulsions come on from wounds, and other accidents, as I could infallibly shew from the efforts of nature, the phenomena observed, and relief obtained from medicine, in such cases of them as are related, or that I have seen or heard of.

If this were not the case, why has substantial relief been received from the use of mercurials and the discharge of foul humours by salivation, or after most violent efforts, a cessation of convulsion come on upon the appearance of an erysipelas, or eruptions on the skin, in cases of Tetanus? Such Disorders do not arise in bodies that are pure, since none are so; and the irritation that comes on must have a cause; and that cause, even in wounds, as far as I am able to trace it, is not merely the wound of a nervous part, but the impurity of the juices, and the want of that balsamic, and wholesome moisture, abounding in the bodies of those who are most healthful, by means of which the nerves are moistened and defended, and whereby the body is in a condition to relieve itself when under a state of irritation, by the discharge, and in particular by free perspiration, of what might otherwise oppress or irritate the constitution.

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and not only bring on spasms, but contribute to the continuance and increase of them, as must happen in those of oppressed and foul habits, in whom that discharge is greatly defective.

Before I leave these subjects suffer me to give this useful intimation, that if men would leave off travelling like the Pack-horse, always with one dull pace in the same wrong road, and laying aside that mode of living which oppresses their bodies, and shaking off that sloth which enervates their souls, and makes them stupid and heavy, and torpid as drones, be persuaded to press forward with patience, perseverance, and also proper activity in a right one; if they also could keep their minds from growing excentric and ungovernable, and being led away by prejudice, or corrupted by sophistry, and rendered useless by scepticism, there is nothing in nature so abstruse, which is the means of any substantial good to men, which the benevolent Creator has not furnished them with proper powers to investigate and understand, so far as may be necessary, if they used those powers in a proper manner, and with industry and application, and could divest themselves withal of that fatal prepossession of mind, arising from reading indifferent books, which has stood as an obstacle in the way of so many, namely, the taking so much for learning, that has no just title to it, and be persuaded to lay aside whimsical notions, and the vain pomp of an affected, ostentatious, but too often unsound knowledge. For it does not appear that the Almighty author of all knowledge, will condescend to impart that of a sublime kind, where true humility and the love of it are wanting, or display the truth, his own image, to the view of any, but those who unfeignedly and ardently seek her in simplicity of mind.

Without this friendly star to enlighten them on the way---without this faithful guide to direct their erring steps, miserable are the wanderings of poor benighted mortals, and many the misfortunes that attend them in their journey through this vale of tears.

With the utmost lowliness and humility, then, let me now offer up these my imperfect labours for the good of my fellow-creatures, to whom, should they escape the wrecks of time, I leave them for a perpetual possession, to that great Being from whom all good proceeds, and in, and through whom this work was began, continued and at length finished.

Gloria Deo in excelsis!

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